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THE
NUMISMATIC CHRONICLE
AND
JOURNAL OF
THE ROYAL NUMISMATIC SOCIETY

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AND
JOURNAL
OF THE
ROYAL NUMISMATIC SOCIETY

EDITED BY
JOHN ALLAN, M.A., F.S.A.
KEEPER OF COINS, BRITISH MUSEUM
HAROLD MATTINGLY, M.A.
AND
E. S. G. ROBINSON, M.A., F.S.A.
DEPUTY KEEPER OF COINS, BRITISH MUSEUM

1246

FIFTH SERIES—VOL. XVIII



Factum ablit—monumenta manent.—Ov. Fast.

LONDON:
BERNARD QUARITCH, 11 GRAFTON ST., W. 1

PARIS:
MM. ROLLIN ET FEUARDENT, PLACE LOUVOIS, No. 4
1938

1246

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Printed in Great Britain at the
UNIVERSITY PRESS, OXFORD
By John Johnson
Printer to the University

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LIST OF FELLOWS (separately paged).

I.

THE EARLIEST COINAGE OF ROME IN MODERN STUDIES.

OF that new interpretation of the first coinage of Rome, which has been developed by the present writers in recent years in the *Journal of Roman Studies*¹ and in a paper of the British Academy,² our readers will already have some knowledge from the address delivered by our late President, Mr. Percy H. Webb, to the Numismatic Society in June 1934, and published in the *Proceedings* of the same year.³ It is now coming to be generally admitted that our revised date for the "X" denarius must be at least approximately correct;⁴ and that, if this is so, a drastic reconstruction of the earlier coinage follows as a necessity. This is a task that still remains to be done; we have only as yet given some general indications of the changes that are to be expected in the near future. The time should soon come to make a new advance, to fix the limits of date for the earlier coinage, to define

¹ *J.R.S.*, 1929, pp. 19 ff.

² *The Date of the Roman Denarius, Proceedings*, xviii, 1933.

³ *Num. Chron.*, 1934, *Proceedings*, pp. 19 ff.

⁴ Prof. Hugh Last, for example, in *The Year's Work in Classical Studies*, 1934, p. 89, reports that "it is by now becoming clear that this revolutionary account (of the denarius) is in essentials right". See also reviews of the Denarius article in *Rassegna Numismatica*, 1934, pp. 263 ff. (by E. Gabrici), in *J. R. S.* 1934, p. 61 (by J. G. Milne, with certain reserves), and in *Numismat. Literatur-Blatt*, 1937, pp. 2911-12.

its character and purpose, and even to offer some tentative suggestions as to its mints of origin. We hold it to be definitely unwise for the moment to insist too closely on exact dates or places, or to attempt to sketch complete systems of metrology or offer exhaustive explanations of types. Dates and places are indeed becoming less uncertain, but only within limits, and uncertainty of dates and places reacts unfavourably on the study of types and metrology. The weights of our coins can be adjusted to various systems according as we classify and date them. The exact significance of types, again, must depend on the precise circumstances of issue. It is only as we patiently accumulate sure historical data that we can begin to determine which of several theoretical possibilities corresponds to the reality.

We have thought it right, as preface to such a study, to give a short survey of the study of early Roman coinage from Eckhel to the present day. Without such a study it is hardly possible to understand why modern approach to the subject has taken the particular line that it has, or why such a drastic reinterpretation as we are suggesting is still possible, nor will such a study fail to enrich us with many suggestions that will prove valuable when we come to the building of a new system. In front of all, we place a brief conspectus of the pre-denarius coinage, for easy reference; the detail must be sought in the handbooks.⁵

⁵ For *Aes* see especially Haeberlin's *Aes Grave*, Frankfurt, 1910; for silver, gold, and token *Aes*, Grueber, *B.M.C. Rep. II*, pp. 116 ff., Bahrfeldt, *Le Monete Romano-Campane R. It.*, 1899, pp. 387 ff., 1900, pp. 11 ff., and A. Sambon, *Les Monnaies antiques de l'Italie*, 1903, pp. 421 ff.

Prior to the use of the "X" denarius, the Romans had the following coins:

AES.

I. Bars or bricks, with types on both sides (*Aes Signatum*).

We admit these pieces as being, if not coins, currency, hardly distinguishable from coinage. We omit the "Aes Rude"—rough fragments of bronze which went simply by weight—and the bars that show only rudimentary types, such as the herring-bone pattern. No marks of value.

II. Asses, with multiples and subdivisions of libral weight.

(a) *The "Latin" series of Haebelin.*

- (1) Helmeted goddess ("Roma")—Wheel. Tressis, Dupondius, As to Sextans.
- (2) Helmeted goddess ("Roma")—Helmeted goddess. As to Semuncia.
- (2 a) Helmeted goddess ("Roma") (symbol, club)—Helmeted goddess (symbol, club). As to Uncia.
- (3) Beardless "Janus"—Mercury (symbol, sickle). Light. As to Uncia.
- (4) Apollo—Apollo (symbol, vine-leaf). Light. As to Uncia.
- (5) Beardless "Janus"—Mercury. Heavy. As to Semuncia.
- (6) Apollo—Apollo. Heavy. As to Uncia.

Series (1), (2), (2 a), (3), (4) show the same standard for the As, c. 4211 gr., 272.87 gm.; (5) and (6) show heavier standards, (5) c. 5453 gr., 327.45 gm., (6) c. 5262 gr., 341.1 gm.

The close relations of all these series to silver marked ROMANO, ROMA, makes it certain that they too are Roman.

(b) *Janus—Prow ; in two main variations :*

(1) Prow l. As to Sextans.

(2) Prow r. As to Uncia.

Weight c. 4211 gr., 272·87 gm.

(c) *Goddess, helmeted, with triple crest, facing—Bull.*
ROMA.

As only : an isolated denomination. Weight 4211 gr., 272·87 gm. The only libral As with the name of Roma.

Marks of value throughout.

III. Asses, with multiples and subdivisions, of reduced weight.

None of the "Latin" series (a) undergoes reduction.

In the Janus—Prow series we have :

(a) *Cast pieces. Prow always l.*

Decussis, Tressis, Dupondius, As to Triens.

(b) *Struck pieces. Prow always r. ROMA.*

Triens to Quartuncia.

In the cast series the weight of the As falls irregularly from a little under 6 oz. to under 2 oz.; a *first* and *second* reduction are not clearly marked.

In the struck series we have a clear subdivision into first reduction—based on As of 6 oz.—Sextans to Quartuncia, second reduction—based on As of 3 oz.—Triens to Quartuncia (triens of the second reduction is often overstruck on the Sextans of the first, and so on).

A third series, corresponding to the first reduction of the struck pieces above, seems to begin and end on this standard :

(c) Struck pieces. ROMA.

Juno(?), Hercules and Centaur, and other types.
Triens to Semuncia.

There are no pieces of libral standard to correspond. Only one denomination, the Quadrans with types, Head in boar-skin—Bull and serpent, passes into later reductions, even beyond the second reduction of the Janus—Prow series. Marks of value throughout.

SILVER.

I. The four didrachms signed ROMANO.

- (a) Mars, helmeted l.; Oak-branch—Horse's head; corn-ear.
- (b) Apollo, laureate l.—Free horse; star.
- (c) Hercules wearing lion-skin on neck r.—She-wolf and twins.
- (d) Helmeted goddess ("Roma"); changing symbol—Victory; single or double Greek letters.

The weights are *c.* 112.5 gr., 7.29 gm. for (a) and (b); *c.* 109 gr., 7.00 gm. for (c); *c.* 102.5 gr., 6.64 gm. for (d).

(a) and (c) have no obvious equivalents in the *Aes*. (b) is naturally associated on grounds of types and style with II. (a) 6 and 4(?); (d) with II. (a) 1, 2, and 2a above.

It has been usual to place (d), because of its lighter weight, later than (a)–(c).

II. The three didrachms, in types and style similar to class I, signed ROMA.

- (a) Mars, helmeted, r.—Horse's head (symbol, sickle).
 - (b) Mars, helmeted, r. (symbol, club)—Free horse (symbol, club).
 - (c) Apollo, laureate, r.—Free horse.
- Weight *c.* 102.5 gr., 6.64 gm., all series.

(a) is related by types, not by style, to the didrachm 2 a above. It is linked by symbol, sickle, to *Aes* II. (a) 3.

(b) is linked by symbol, club, to *Aes* II. (a) 2 a and, through it, to silver, I. (d).

(c) is related by types, not by style, to silver I. (b), and *Aes* II. (a) 4 and 6.

(a) and (c), but not (b), have half-pieces.

With silver of classes I and II is associated token bronze of four distinct denominations.

III. The *quadrigatus* didrachm, signed ROMA.

Beardless "Janus"—Jupiter and Victory in quadriga, r.
Weight, c. 102.5 gr., 6.64 gm., dropping to 85 grs. or even under.

It is possible that in its earliest form this didrachm should form a fourth in group II, or even be earlier still. But it is so much more extensively issued than the others and passes through so many varieties of style and reductions of weight, unknown to them, that it seems to require separate treatment.

A half-piece of the same types, except that the quadriga on reverse is to l., occurs only in what seem to be the earlier issues.

The *quadrigatus* is naturally associated with *Aes* II. (b) and III, the Janus—Prow series, in its full libral weight and in its reductions, also with gold to be described below.

IV. The *victoriatu*s drachm, signed ROMA.

Head of Jupiter, r.—Victory r. crowning trophy.

Weight c. 52.5 gr., 3.32 gm., with a tendency to decline.

This coin appears to be a drachm more or less closely

corresponding to the didrachm *quadrigatus*. The decline in its weight is similar to that in the weight of the double piece. The *victoriatus*, then, seems to represent the half-piece of the *quadrigatus*, after the early issues of the half-piece with *quadrigatus* type had ceased.

GOLD.

One pair of types.

Beardless "Janus"—Two warriors striking a treaty, over the body of a pig; signed ROMA.

In three denominations:

(a) c. 102.5 gr., 6.64 gm.

(b) c. 51.25 gr., 3.32 gm.

(c) c. 70.00 gr., 4.53 gm. with mark of value XXX.

All three denominations seem to be related to the *quadrigatus* at one stage or another of its development.

Such is the coin material which we have to reduce to order. The literary tradition, which comes in to elucidate and complete the record of the coins, may be conveniently classified in three groups:

- (1) Notices relating to the period of the kings—and in particular to the reign of Servius Tullius.
- (2) Notices relating to the Republic, from 509 to c. 300 B.C. Not seldom, coinage, in one form or other, seems to be implied as part of the historic background: definite records of coinage are completely lacking. A transition from valuation in cattle to valuation in bronze is implied in a series of passages relating to the mid-fifth century B.C.
- (3) Notices relating to the period after c. 300 B.C. We begin now to meet something like a connected tradition, the most important element in which is Pliny's connected account in his *Natural History*.

The attitude of scholars to the literary tradition, no less than to the coin material, has undergone changes

which are not uninformative in relation to the general problems of dating and interpretation.

On this tradition and on these coins research has been busy for upwards of a century—to be strictly accurate, for very much longer than that; but, for most practical purposes, we are safe in beginning with Eckhel, who mediates for us that part of the older tradition that is worth preserving.

Eckhel's initial warning⁶ goes straight to our hearts:

“Libet praemonere, numorum consularium doctrinam suapte jejunam atque sterilem pauca objicere philologiae commodis profutura, et si qua sunt digniora, molestis ponderis, valoris, aetatis disquisitionibus implicari, in quibus cum plerumque unis conjecturis pugnandum sit, operam dabo, ut neque praecepta ejus capita lectori sint ignota, neque ejus ad utiliora, amoenioraque properantis fatigem patientiam.”

Perhaps not a very hopeful approach to the coinage of a great people, but direct and sincere. As this cautions prelude would lead us to expect, Eckhel proceeds to handle the problems of early Roman coinage with cool restraint, risking little in the way of positive assertion and touching lightly on difficulties and their possible solutions. He will not be positive in attributing any extant coins to the period of the kings. He finds the tradition that Rome first coined in *Aes* entirely credible. He realizes that the account of our main authority, Pliny, must conflict at several points with the coin evidence. An “X” denarius, for example, can never have been worth ten liberal asses, as Pliny asserts. But Eckhel refuses to believe in an original denarius heavier than the “X” piece, and has

⁶ *Doctrina Numorum*, v, p. 1; pp. 1-50 should be read with care. The book began to be published in 1792.

therefore to look for Pliny's error on the side of the liberal Asses.⁷ The victoriatns is still a mystery to Eckhel. He supposes it to be from the first another name for the silver quinarius and rallies Pliny in amusing style on the obscurity of his account of the coin (pp. 20, 21).

So far, if we have not harvested any very large gains, we have certainly not been led into any very serious error. But Eckhel, with all his caution, cherished one pet theory about the early Roman coinage, which, albeit with becoming modesty, he pressed with some insistence on his readers:

"Novi non defuturos, quibus illud inconsultius adserere videbor, at spero, perfectis, quae ad singulos monebo, in gratiam mecum redituros."⁸

He observed that the silver of our classes I and II shows a fine style and fabric more comparable to that of a Greek city like Naples than to the later Roman style of the "X" denarii. To these silver coins he naturally added the gold of the oath-scene reverse, and, less justifiably, the Mars gold, the connexion of which with the "X" denarius he did not realize. He now added to his first observation of style a spice of unproved theory, and attributed the whole of this coinage to mints in or near Campania. He actually ventures to describe the coins as "nummi peregrini inscripti ROMA" or "ROMANO",⁹ and brings himself to write of the Mars gold "et vero si inscriptum

⁷ The fact that a gold piece, of twice the weight of the "X" denarius, can itself be called "denarius" does give him pause, but he satisfies himself with the explanation that the gold and silver are of the same "volumen" (bulk?).

⁸ *Op. cit.*, v, p. 44.

⁹ *Op. cit.*, pp. 44 ff.

'ROMA' demas, nullam aliam potest Nauzeus commemorare auctoritatem, quae Romanam hos numos monetam comprobaret",¹⁰ as if any other or better authority could be desired.

If we ask for further evidence for these extraordinary suggestions Eckhel will quote to us the very rare copper coin with Neapolitan types and in Neapolitan style, with legend ΡΩΜΑΙΩΝ, as "nummus ad causam meam insignis". But why? These coins were no doubt struck in Naples by moneyers of Naples, but the ethuio ΡΩΜΑΙΩΝ stamps them as Roman money. Who would deny the possibility that Rome might have coin struck for her in a friendly city? And further, the analogy which Eckhel wishes to draw is not admissible. This copper coin is related to the mint of Naples in a way in which none of our silver didrachms of classes I and II is related to any known mint of South Italy—Naples, Capua, or what you will. Eckhel quotes finds of Mars gold as typical of Apulia, Lucania, and Sicily rather than of Rome and its environs. Had he realized the true place of this gold in the system, he could not have begun to argue so. But, in any case, granting that the find-evidence is sound,¹¹ what of it? All that it can possibly prove is local issues of Roman money, not local money, masquerading under the Roman name. Eckhel himself seems to have attached great importance to his own theory that the form ROMANO, with parallel forms like CALENO, COSANO, SVESANO, and forms of similar sound like AQVINO, ARIMINO, TIANO, are not Latin but Italic (Oscan?), with a special case-

¹⁰ *Op. cit.*, p. 34.

¹¹ We have been unable, so far, either to verify or to disprove it.

ending (NO).¹² The full discussion of these forms must be deferred to a later time. Eckhel's theory is sufficiently met by the observations:

- (1) That the forms always meet us in Roman, not in Oscan script.
- (2) That there is no evidence in any Italic dialect of the supposed case-ending—NO.
- (3) That it does not explain the real difficulty of these forms—the presence of CALENO and AQVINO side by side with forms of similar sound, but different grammatical form. Whatever the dialect, the N is part of the stem in the one case, not in the other.
- (4) That at Ariminum and Aquinum, at least, Italic or Oscan, in place of Latin, is unthinkable.

It would have been well then if Eckhel's strange theory of "nummi peregrini inscripti ROMA" had at once encountered the fierce opposition which he anticipates. Actually it has enjoyed an astonishing success. We still speak of the first Roman silver and its token *Aes* as Romano-Campanian coinage. The system of Haeberlin was built upon it as its main foundation. But the faults of the theory are palpable and grave:

- (1) It takes style to be decisive of place of mintage—as though it were not easy enough to establish a mint with Greek artists and workmen in Rome or anywhere else you pleased.¹³
- (2) It defines style loosely as "Campanian". No careful comparison with the style of individual known mints was undertaken.^{13a}
- (3) Most serious of all, coinage of "foreign" style is defined as foreign. Mommsen, of course, realized that

¹² *Op. cit.*, i, pp. 124 ff., esp. 127.

¹³ Cp. Wolter's remarks, "Das älteste Bild der Roma" in *Festschr. f. M. Wölflin*, pp. 10-11.

^{13a} The relation of the helmeted goddess—Victory series, II. (d)—to the mint of Alexandria was not noted. Since Eckhel it has usually been ignored, occasionally seen and denied.

this was quite inadmissible, and Haeberlin added his emphasis to the case. Coin in the Roman name must be Roman. But both of them failed to clear themselves of the false implications of this false view. They still considered this first silver Roman coinage as Roman coinage with a difference—not the first silver coinage, in the sense in which Pliny and Livy use the words.

Having thus eliminated from the scene the whole of Rome's first silver Eckhel could readily accept Pliny's denarins of 269 B.C., and lay the blame for his false equation between silver and *Aes* (1 "X" denarius = 10 libral Asses) on a mistake about the libral As: that must have ceased to be issued some time before 269 B.C. The other alternative—to accept Pliny on the *Aes* and correct him on the silver—was not seriously considered, and research was committed to work for more than a century in the trammels of a faulty chronology.

An opportunity for repentance was afforded by Boeckh's *Metrologische Untersuchungen*, 1838,¹⁴ a work of genius, which has unfortunately been praised more often than heeded. Working largely by intuition, where we can now work by sight, Boeckh seems in many cases to have found the truth direct. Against this it matters little that he misunderstands the *victoriat*, regards the ROMANO silver (our class I) as imitations of the ROMA silver, or handles the "regius nummus" of Servius with a respect that it does not deserve. Here, in brief, is Boeckh's view of the coinage. The libral *Aes Grave* lasted down to the first Punic War, as Pliny records. During that war it may well have fallen, through the various inter-

¹⁴ The most important sections for our purpose are xxiv ff., esp. xxx.

mediate stages, to the sextantal standard. Earlier by a little than the round libral Asses was the currency of stamped bars. Pliny's "denarius" cannot be our "X" coin—the exact date of that and of the sextantal *Aes* that goes with it has still to be determined; a heavier coin is required and is clearly to be found in the so-called "Romano-Campanian" issues. The "Greek" style of the first "denarii" does *not* imply mintage in a Greek city. What we may call Roman style is already to be recognized on the *quadrigatus*. We have only recently realized, in re-reading Boeckh after our own researches on the subject, how largely he had anticipated in vision results to which we have been driven by close observation of difficulties in current theories. We gladly give him the honour that is his due. But our previous failure to recognize our debt to him is excusable enough. Boeckh's challenge fell on deaf ears and was almost forgotten; the system of Eckhel, with all its weaknesses, continued to hold the field.

Up to this time attention had been concentrated on the silver rather than on the *Aes Grave*. The balance was to some extent restored by the Fathers, Giuseppe Marchi and Pietro Tessieri, in their study of the *Aes Grave del Museo Kircheriano*, Rome, 1839. The Janus—Prow they naturally attributed to Rome. Coming to the "Latin" series (our II. 1-6) they recognized how closely those series are related to silver of our classes I and II. But why, they asked, granting the silver to have been struck outside Rome, should it be attributed to Campania? Have not the cities of Latium a better claim to both silver and *Aes Grave*? On this basis they tentatively assigned the Latin *Aes*

Grave as follows: our 1 to Ardea, 2a and 3 to Aricia, 2b to Lanuvium, 4 to Antium (?), 5 to Tusculum, 6 to Antium. The weak point in the work of the Fathers was their dependence on guesswork and indecisive arguments from types. The helmeted goddess was, for them, a Phrygian Venus—presumably on the strength of her helmet alone. As regards chronology, they made no attempt to date the various series of *Aes Grave* closely; of its great antiquity they had no doubt.

A long article by Ch. Lenormant in the *Revue Numismatique* (1844, pp. 170 ff., 245 ff.), "*Recherches sur les époques . . . de l'Aes Grave en Italie*", has had a marked influence on later studies. Lenormant regards the bricks as older than the round Asses; but none of the latter, in his view, could be earlier than about 390 B.C., and the Italian issues are later than the Roman.¹⁵ He puts the sextantal As in 269 B.C., misquoting Pliny to do so (p. 178). The bar with the *pulli* feeding, the *rostra* and the stars, causes him some uneasiness; it ought to refer to a great naval victory—to some date in the First Punic War, in fact—which, on his general theory, is absurd. He approves the attribution of the "Latin" *Aes Grave* by Marchi and Tessieri to Latin cities, but, in all cases, would separate *Aes Grave* in point of time from silver and token *Aes*, the latter being later in every case.¹⁶ The quadrigatus is attributed to Capua at a date near 300 B.C.¹⁷

¹⁵ *Op. cit.*, pp. 266–8, n. 1.

¹⁶ *Op. cit.*, p. 187: "D'ailleurs le système de l'*Aes grave* exclut nécessairement l'emploi simultané de monnaies de cuivre, frappées avec un coin et d'un petit module".

¹⁷ *Op. cit.*, pp. 189 ff., especially p. 194.

From then on Capua issues silver to Romo's *Aes Grave*. The rare bronze, with legend *POMAIQN* and Neapolitan types, is attributed to c. 320 B.C.¹⁸ Lenormant notices, without finding an explanation, the appearance of an African elephant on coins of Capua, much earlier than could, on his dating, be expected. He has his doubts about the royal *nummus* of Servius Tullius. Silver coins of so early a period seem not to exist, and, even in the case of the *Aes*, none of our existing specimens can be pushed upwards above about 364 B.C., though earlier pieces of heavier weight, now lost, may have preceded them. The gold piece, with mark of value, XXX, and reverse, oath-scene, was judged by Lenormant to be a re-issue of the original coin under the Empire.

Full of interest and stimulus as this long paper is, it suffers from the lack of sure foundations. Lenormant neglects the challenge of Boeckh and neither accepts nor refutes his views. Here and there he stumbles on a fact which conflicts fiercely with his general scheme. He is very honest in admitting the facts, but he does not think of altering his system. Through his influence on Mommsen, however, he has earned a high rank among the pioneers of early Roman coins.

In the same periodical (*Revue Numismatique*, 1859, pp. 322 ff.) appeared an article that won great fame in its day, "Le Nummus de Servius Tullius", by the Duc de Luyne. There the thesis is ably stated and argued that the *nummus* of Servius Tullius actually existed and has come down to us in the shape of two silver pieces, one with *obv.* *QVALANT*, Sow and young, *rev.* Branch and grapes; the other with *obv.* *POMA*,

¹⁸ *Op. cit.*, pp. 250 ff.

Club, rev. Sow and young under tree, KVPI. Elaborately refuted by Mommsen in the French edition of his great treatise on Roman coins, the thesis is now dead, and, with the increasing certainty that the antiquity of Roman coinage was vastly exaggerated, no scholar is likely to be found to revive it. None the less, the paper marks an interesting stage in the study of the subject.

We come at last to Theodor Mommsen, whose *Römisches Münzwesen*, 1854 (better known to many in the French translation of the Duc de Blacas,¹⁰ 1865-1875) has justly ranked from the first as an authentic work of genius. Seriously as his results have been modified at several points, his spirit has dominated most of the later research. An intimate knowledge of Mommsen is indispensable even to-day.

Let us sum up Mommsen's system in brief. Roman coinage was not actually as old as the period of the Kings. We have no *regii nummi* in our trays: the examples adduced by the Duc de Luynes (see above) are demonstrably false. References to commutation of fines from oxen and sheep to metal in the mid-fifth century B.C. enable us to date the first *Aes Grave* to the time of the Decemvirs, 451-449 B.C. The *Aes rude* that had previously been in use continued to be used for some long time beside the coined money. The bars (*Aes Signatum*), though cast at the average normal weight of 5 Roman pounds and clearly currency of

¹⁰ The French edition is easier to read and, in so far as it embodies later views of Mommsen himself, superior; yet to some it will seem to lack some of the strength of the original. The *Abhandlungen der Kön. Sächs. Gesellschaft der Wissenschaften, Phil.-hist., Klasse I* (1850), pp. 223 ff., contain interesting studies by Mommsen, made in preparation for his great work.

a kind, were not marked with their value, and were therefore not officially tarified at 5 Asses. It is the marks of value on the round As and its multiples and subdivisions that assure us that we have at last reached money of definite guaranteed value.

The other series of *Aes Grave* with close affinities to the Roman, the "Latin" *Aes Grave* (our class I), are probably Latin in fact—struck at Latin cities in or near Latium. Mommsen thus approves in general the scheme of Marchi and Tessieri. He varies the details, suggesting Alba for series 1, Tibur for 2, Praeneste for 2 a, Fregellae for 5,²⁰ Ardea for 6; 3 will belong to some other mint in Latium. All that we can be sure of is that they are issues of cities allied to Rome. The triple-crested goddess, with the bull as her reverse, perhaps comes from Central Italy. The reduced series, with varied types (our III b), seems to have affinities with Apulia. The whole of this Latin coinage ends with the appearance of the denarius, the coin of Rome triumphant, in 269 B.C. The As of 269 was one of four ounces, not a pound, as Pliny incorrectly reports; and here we reach a fundamental equation of early Roman metrology—1 sesterlius = $2\frac{1}{2}$ Asses of four ounces each = 1 libral As of ten ounces.²¹ To allow of this equation the As, which should strictly weigh twelve ounces, was cast light at ten. The silver unit, the sesterlius, the fourth of the denarius, is derived from Sicily. The As of four ounces falls to two ounces during the first Punic War; its subsequent falls can be traced from Pliny. The

²⁰ Or Fundi or Formiae. He apparently takes no account of the rare class 4.

²¹ *Op. cit.*, pp. 283 ff.

denarius of 269 B.C. is the first silver coinage of Rome herself. The whole of the earlier coinage of didrachms (our classes I to III) is Roman indeed, in strict point of law, but so foreign in its place of mintage and in its circulation that later authorities naturally distinguished it from the denarius.²²

This short summary does scant justice to a work of profound learning and constructive scholarship. It should be read from cover to cover with close attention. Yet it has one or two serious defects which are to-day obvious and can and should be exposed as such. Eckhel's theory of a "Romano-Campanian" coinage is accepted almost without question, as if it were something self-evident. Though Mommsen could not share in Eckhel's description of these coins as "peregrini", he seems never to have asked very seriously how, with so much Roman silver before it, the denarius could be called the "first" silver of Rome. And yet Mommsen himself realized (*op. cit.*, p. 343) that the quadrigatus of the second Punic War is the didrachm, not the denarius, with Jupiter in quadriga on reverse—a realization which really necessitates a revision of the whole system. Boeckh, we have seen, had called for the study of the early coinage on a basis quite distinct from Eckhel's. Mommsen dismisses Boeckh's main contention in one long foot-note, with a comment that almost sounds flippant: a denarius heavier than the "X" denarius is reported by an ancient authority, a similar denarius is postulated by Boeckh and identified by him with our "Romano-Campanian" didrachms—the two do not agree on the weight of the heavier

²² *Op. cit.*, pp. 211 ff.

denarius—therefore both are wrong. The fact is, that the "Romano-Campanian" theory appealed to Mommsen on its general merits. It looked right to him in the historical setting, and he did not criticize and test its soundness as closely as he might otherwise have done. A second serious weakness consists in the excessive importance attached to the sestertius in contradistinction to the much better attested nummus. Is there a single reference to the sestertius before 200 B.C.? It certainly only comes into common use twenty to thirty years later. The attentive reader will not fail to observe how uneasy Mommsen is about the absence of early references to the sestertius and how hard he works to find scraps of evidence to support his view of its early importance.²³ The only well-attested silver of the first period is the big nummus—the didrachm.

Entirely dependent on Mommsen in all essentials for his Roman section is Hultsch, *Griechische und römische Metrologie*,²⁴ and his careful and laborious book need not therefore detain us here. One thing we owe him is the "reductio ad absurdum" of Eckhel's theory of "Romano-Campanian" issues. Hultsch does not even mention them in the Roman coinage. Fr. Lenormant's illuminating work on "La Monnaie dans l'Antiquité"²⁵ carries on the same tradition, though

²³ Cf. *op. cit.*, pp. 196 ff., especially p. 198 and note 83. "Boeckh, it is true, questions the age of this use (nummus equal to sestertius), but we find it established in *Cato* (our italics) and in general far too deeply and firmly founded, to have only been established in the 7th century of Rome." This is really only begging the question. Cf. also pp. 201, 202; Mommsen concludes that the sestertius reckoning is more ancient than the denarius reckoning.

²⁴ First edition, 1862; the second edition of 1882 seems not to add anything serious from our point of view.

²⁵ Incomplete; publication began in 1878.

Mommsen may have owed as much to the earlier Leuormant as the later Lenormant does to Mommsen. Some new points of interest emerge in his treatment of the early Roman coinage. The reduction of the As is regarded as serving two purposes, (1) to reduce the debts of the state, (2) to compensate the falling value of silver.²⁶ Private debts, it is suggested, were treated on a different footing to national ones. The forms ROMANO, CALENO and the rest are interpreted as the curtailed versions of ROMANOM, CALENOM—a very valuable suggestion.²⁷ Fr. Keuner in 1857²⁸ contributed an important discussion of a detail of major significance—the identity of the goddess of the “X” denarius. His conclusion is that Roma is represented—conceived on the model of Athena Polias—but, as yet, “personification” only, not goddess. The real difficulty of the type—its divergence in detail from all certain types of either Roma or Minerva—is not considered. The great scholar Bartolomeo Borghesi²⁹ made one contribution of permanent value to these studies by identifying with certainty the early Roman “victoriate”. Up till then there had been constant confusion between the earlier piece and the later, which was known to be the half of the denarius.

Baron d'Ailly's *Recherches sur les monnaies romaines*, Lyon, 1864, have not quite that importance for general theory that they undisputably have for the detailed study of the denarius and its corresponding *Aes*.

²⁶ *Op. cit.*, iii, pp. 21 ff.

²⁷ *Op. cit.*, ii, p. 233; but accusative singular, rather than genitive plural.

²⁸ *Sitzb. der Ph.-hist. Klasse der K. Akad. der Wissenschaften in Wien*, pp. 253 ff.

²⁹ *Oeuvres Complètes*, ii, pp. 283 ff., cp. pp. 297 ff.

D'Ailly knew his coins, as hardly any scholar has known them before or since his day, but he was committed to the hopeless belief in a "regius nummus" which vitiated his whole chronology. According to his schemes *Aes Grave* was first issued by Tarquinius Priscus; it was reduced the first time—to half a pound to the As—c. 390 B.C., at the time of the Gallic invasion; it was reduced a second time—to three ounces to the As—in 269 B.C. The quadrigatus is the first Roman nummus,³⁰ and dates from about 396 B.C. The ROMANO-ROMA didrachms and token copper (our classes I and II) and the *Aes Grave* corresponding, all belong to Latin colonies which used the Roman name as a mark of their subjection.³¹ D'Ailly's theories were based, as we have indicated, on a profound study of his subject. They can still be used with profit so long as the big corrections necessary in dating are made.

In Vienna in 1883 appeared a contribution of the highest importance to numismatic studies: *Geschichte des älteren römischen Münzwesens*, by Karl Samwer and Max Bahrfeldt, the papers of the former edited after his death by the latter. The authors consider with close care the "X" denarius and the sextantal As, prove the very intimate connexion of the two, analyse and compare their various issues, and note the decline in weight, which befalls both silver and *Aes*, though not in exact correspondence in the two. This is the main theme of the book. It is in a very high

³⁰ Le Gentilhomme (see p. 31) has taken up this suggestion and used it very effectively in a new context.

³¹ If we say instead that Rome arranged for the issue of an alliance coinage for her Latin allies from Latin mints, we shall be saying what is essentially the same thing in a more acceptable form.

degree successful, and forms an essential basis for all future research. The analysis of the coin-material, in particular, is wellnigh perfect; we may learn to use it more fully, we shall hardly improve on it. The denarius is still dated to 269 B.C. But to the coinage preceding it new and fruitful ideas are now applied, more especially to the study of *Aes Grave* in its main series, the Janus—Prow.

Mommsen had assigned the origin of this coinage to the decemvirs. It was now proved that the very form of the prow on the reverse demands that later date which arguments from style themselves require. The Roman prow is not one of the older Greek forms, such as the volute like a goose's neck. It is of the new shape first seen on coins of Antigonus Gonatas, c. 258 B.C., but claimed by some observers for the broken prow of Demetrius Poliorcetes, c. 306 B.C. This shape then becomes fashionable, and remains in vogue till the early Empire, when the goose's neck volute is again found. On this evidence Samwer and Bahrfeldt assign the beginning of the Janus series to c. 350 B.C. If only they had inferred as splendidly as they had observed! The change to the new shape did not take place even in Greece till near 300 B.C. at the earliest. Rome in naval matters was notoriously a slow starter, and she had everything to learn from abroad. Her first serious battle-fleet was that of Mylae in 260 B.C. The prow of the coins, then, is obviously the prow of this fleet at earliest; it might turn out even to be that of the fleet of the Aegatian Islands. But again, Pliny's denarius of 269 B.C. and Eckhel's "Romano-Campanian" theory were allowed to rob us of the just rewards of research.

The *Monete dall'Italia Antica*, 1885, of Garrucci, is

used—and abused—by every student of Roman coins. It is unquestionably a most valuable collection of material; equally certainly it falls very far short of what the author might have made it. In his attribution of the early Roman silver and *Aes*, Garrucci prefers Latium and its surroundings to Campania, and offers variations of the scheme of Marchi and Tessieri. He assigns the series of "Latin" *Aes Grave* conjecturally as follows: (1) to Sutrium, (2) to the Sabatini, near Caere, (3) and (6) to the Sabines, (5) and (4) ? to Saura Faliscorum. Not one of these attributions seems to be more than a guess.

Ernest Babelon's *Description historique des monnaies de la république romaine*, 1885, has interpreted the Republican coinage to two generations of students, and has had a vogue and reputation almost unequalled of its kind. *Aes Grave* is still attributed to the Decemvirs,³² while the "Romano-Campanian" silver (our classes I and III) and the "Latin" *Aes Grave* (our class II. 1-6) are regarded as military coinages of Campania and Apulia, in the long period between 342 and 211 B.C. We are clearly aiming here at so large a target, that hitting is not very significant. We understand from friends in Paris, who heard lectures by the great French savant in his later years, that he was then disposed to re-think Roman problems far more drastically than in the earlier work. Close after Babelon followed Prince Soutzo, the indefatigable student of metrology, with his *Introduction à l'Étude des monnaies de l'Italie antique*, 1887. Like Babelon he regarded the "Romano-Campanian" silver as mili-

³² Who by an amazing slip are made contemporary with Demetrius Poliorcetes, 306 B.C. (= 448 A.V.C.).

tary coinage outside Rome, but he did no more than Babelon to justify or explain the interesting hypothesis. The libral *Aes Grave* ran its course, as he thought, from about 338 to 264 B.C. Bahrfeldt's studies of the "Romano-Campanian" coinage in *Rivista Italiana di Numismatica*, 1899, pp. 387 ff., 1900, pp. 11 ff., are still of cardinal importance as collections of material; they do not advance materially beyond the positions earlier taken up by him.

E. J. Haeberlin,³³ to whom we now come, has perhaps exercised a greater influence on early Roman numismatics than any other except Mommsen. His masterly "Corpus" of *Aes Grave*, his elaborate metrological studies, the firmness and confidence of his *Systematik* all combined to win for him an authority which was for many years almost unchallenged. He owed much to the past. His main dating of the *Aes Grave* was in effect an application of the results of Samwer and Bahrfeldt. What was essentially new and vital in Haeberlin himself was his resolution to apply the coins to history and to demonstrate how the Roman coinage accompanies and illustrates the Roman advance in Italy—in fact, to raise numismatics from the low estate in which it weltered amid vague and untried guesses, and to raise it to dignity and security in its proper place among the studies ancillary to history. However much we may depart from the rigid lines of

³³ His main works are the *Aes Grave*, Frankfurt-a-M., 1910, and the *Systematik des ältesten römischen Münzwesens*. Other articles dealing with special problems of the gold coinage will be found in *Frankf. Mz.*, 1919, pp. 17 ff.; *Z.f. N.*, 1908, pp. 229 ff. He contributed to *Corolla Numismatica*, London, 1906 (pp. 135 ff.), a valuable study of the "Roma" type.

his *Systematik*, here he taught us a lesson which we can only neglect at our peril.

A short sketch of the *Systematik* must here suffice. We begin with a coinage of silver, in Campania, closely connected with the political union of Rome and Capua. Haeberlin assigns it definitely to the one mint of Capua, beginning with the year 335 B.C. While Capua strikes silver, Rome casts *Aes Grave*, of the Janus—Prow series; the reverse type refers directly to the conquest of Antium and her fleet in 338 B.C. This gives us the system of the first period, 335–312 B.C.—silver at Capua, *Aes Grave* at Rome, but no fixed legal relation between the two. Period II, 312–287 B.C., sees an increase of Roman control over Capua, a closer harmonization of the mints, a definite legal relation of silver and *Aes*. Rome continues to cast her “Janus” *Asses*, but Capua now issues silver and *Aes Grave* in parallel series, linked by types and (or) symbols; but the *Aes*, though cast in Capua, was to circulate in Latium. The third and final period, 287–269 B.C., begins with the reduction of the *As* to a half and the introduction of the quadrigatus, and ends with the denarius and the sextantal *As* of 269 B.C. The two heavy “Latin” series, Apollo and Janus—Mercury (our class II. 5 and 6) are very loosely tacked on to this period, the former to Capua, the latter to Rome. Over the various series the bars with types are ingeniously, but not convincingly, distributed.

The reception of Haeberlin's great work by the critics was, on the whole, extremely favourable. Regling reviewed the *Systematik* at some length in *Klio* (1906, pp. 487 ff.), contributing at the same time an important independent study of the weights of South

Italian nummi. In general, he welcomed Haeberlin's theory as a great advance on anything yet put forward, but dissented on some particular points, notably on the attribution of a bar with each didrachm and As. Hill interpreted Haeberlin to English students in *Num. Chron.* (1907, pp. 111 ff.) and made him the base of his argument in *Historical Roman Coins*, London, 1909. On one point he made a suggestion of much interest, which attracted favourable notice from many, including Haeberlin himself; he assigned the Mars gold not to 269 B.C., but to the campaign of the Aegatian Isles in 241 B.C. Pansa in *Riv. Ital.*, 1913, pp. 323 ff., fought against Haeberlin for the old view of a "Latin" mint at Lanuvium, but was unable to hold the field against Haeberlin's counter-attack.³⁴ Far more serious were the doubts suggested by A. Sambon in *Riv. Ital.*, 1907, pp. 355 ff.—doubts that spring from a view of the Italian coinages foreshadowed in the *Recherches sur les monnaies de l'Italie* of L. Sambon (Naples, 1863) and already clearly expounded in *Les Monnaies antiques de l'Italie* of A. Sambon himself (Paris, 1903). We have to think of a coinage of silver and *Aes Grave*, issued by the Romans not in Campania only but also in Latinum and district, Samnium and Apulia, and not in any special sense a "military" coinage. Such cities as Arpinum, Cales, and Beneventum may be thought of as possible mints. The dates are later than Haeberlin claims: the ROMANO silver (our class I) runs from about 305 to 270 B.C., the other issues may be grouped in relation to that. Style, apart from any

³⁴ *La Presunta Zecca di Lanuvium* (*Atti e Memorie*, &c., 1915, pp. 21 ff.).

other consideration,³⁵ is decisive. Some of the earliest Roman silver can be linked by style to issues of the Pyrrhic War. This quiet and unassuming argument has often been brushed aside—it has never been answered. H. Willers, in *Corolla Numismatica*, pp. 310 ff., published a delightfully original paper, in which, while accepting some of Haeberlin's conclusions, he crossed him decidedly over others. He followed P. Gardner in attributing the Oath-scene gold to 209 B.C., the Electrum that imitates quadrigatus types to 217, the Mars gold to 241. This is no system that he offers, as Haeberlin was able without much difficulty to prove,³⁶ but it contained some suggestions that may ultimately find a place in a final scheme. Many years later, Behrendt Pick, in a lecture on "Method in Ancient Numismatics",³⁷ pleaded for a fuller historical equipment in the Roman numismatist, and incidentally criticized Haeberlin for presenting hypotheses as demonstrated facts. This lecture drew an "Open Letter"³⁸ from Haeberlin, which warmly and courageously maintains his position, but fails even to understand the defects to which Pick had objected.

Haeberlin's is one of the most forceful minds that has been brought to bear on the coin history of early Rome. In spite of any weaknesses, he cannot fail to leave his permanent mark on these studies. His strength lies in his clear vision of coinage against the

³⁵ Sambon notes that the ROMANO-ROMA silver (classes I and II) is found with Carthaginian coins in hoards.

³⁶ *Die jüngste etruskische und die älteste römische Goldprägung* (Z. f. N., 1908, pp. 229 ff.).

³⁷ *Die Münzkunde in der Altertumswissenschaft*, Fr. A. Perthes, Stuttgart, Gotha, 1922.

³⁸ *Jahrbuch der Frankfurter Numismatischen Gesellschaft*, 1922.

background of history and in his boldness and resource in working out the system on lines once drawn. His weaknesses are in part inheritances from the past. He staked everything on the "X" denarius of 269 B.C.—remove that and the *Systematik*, in its present form, crashes. Yet he never gives evidence of having tested this foundation for himself. Again, he operates with precisely two mints and no more—Rome and Capua—without ever giving any careful justification for fixing that precise number. If we try to analyse the coin material, we at once begin to postulate more mints than two. Haeberlin's "mint of Capua" is found to be a receptacle for a number of related, but distinct issues, not one of which agrees in the details of its fabric with the only certain coins of Capua, the *Aes* with Oscan legend "Kapu". Everything hangs on the political connexions of the coinage. If it actually began just at the time of the union of Rome and Capua, the theory of silver Roman issues at Capua at once becomes attractive. The two parts of the argument prop one another, but neither rests on independent support. In some points the analysis of the coins seem wellnigh complete—the grouping of the ROMA didrachms with their corresponding *Aes Grave* is a good example. In other points, e.g. the treatment of the bars or of the heavy Jaus—Merenry and heavy Apollo series, no finality is reached. What is at first sight the most attractive feature of the *Systematik*, its harmonization of the claims of Campania and Latium to coinage, by supplying them with silver and *Aes Grave* respectively from the same mint, tends to fade when we realize that what are being harmonized are not two known facts, but only two unproved theories.

As soon as the glamour is gone, we see the prosaic fact; it is improbable that one mint would serve two distinct districts with two distinct kinds of coin. Nevertheless, we repeat, Haeborlin's is a noble achievement, and we are glad to consider it our task to rebuild a *Systematik*, inspired by him, in a corrected framework of time.

Grueber's *Catalogue of Republican Coins in the British Museum* (London, 1910), appeared too soon after Haeborlin to take full advantage of his new ideas. On the early period Grueber contents himself with following more or less closely in the footsteps of Mommsen, only correcting, of course, his over-early date for the *Aes Grave*. There is no evidence that De Salis, whom Grueber faithfully follows, had paid any very close attention to this first coinage of Rome. His invaluable studies of style seem, in fact, to begin with the "X" denarius. If he had ideas of his own about the affinities of the ROMANO-ROMA silver series to Greek mints, he seems to have left no record of them.

H. K. Scharp's papers in *Jahrbuch voor Munt et Penningkunde*, 1917, 1918, 1921, 1922, are careful reports of current theories rather than independent researches. Two valuable papers by Oscar Leuze (*Z. f. N.*, 1920, pp. 15 ff., 37 ff.) only just touch the early period: the first fixes 269, not 268 n.c., as the year of the first Roman silver, the second considers Pliny's dating of the first Roman gold.

Mattingly in the *Num. Chron.*, 1924, pp. 181 ff., came back to the problem from the angle of Sambon. The early Roman silver is not of one mint only, but of several; its style brings it down at least as late as the

Pyrrhic War; its types may be associated with events of the time—particularly with the alliance of Rome and Carthage in 279 n.c. Roman silver coinage, then, sprang out of the struggle of Rome with Pyrrhus, and from no earlier event. The *Aes Grave*, too, must be moved down in time to correspond with the silver. This attempt to reform the earliest Roman coinage, though repeated by Mattingly in his *Handbook of Roman Coins* (Methuen, London, 1928), proved unsuccessful. The arguments in favour of it were summarily rejected by Tenney Frank in his *Economic History of Rome*, while Sir William Ridgeway questioned on surer grounds the arguments from types.³⁹ Sydenham in his *Aes Grave* (London, 1926), while not accepting Mattingly's views entire, followed him in experimenting with later dates than Haeberlin's for the *Aes Grave* and allied coinages. But the movement of research was to be forward, not backward from the half-way position here attained. Definite progress was made in 1929 when Mattingly in the *Journal of Roman Studies*, pp. 19 ff., stated a very serious case against 269 B.C. as the true date of the "X" denarius. In 1933 the present writers, developing the argument, demonstrated that the "X" denarius cannot possibly have been struck in 269 n.c., and was in all probability struck nearly a century later.⁴⁰ Revolutionary as this may sound, it appears that it must be taken as the starting-point for fresh research. Actually all it means is that so far the difficulties of the earlier coinage have

³⁹ *Proceedings of the Cambridge Philological Society*, November 24, 1925; the horse types should have reference to Mars, and need not be borrowed from Carthage.

⁴⁰ In the paper cited in note 2 above.

been explained in one general way—the way of Eckhel and Mommsen; the alternative explanation, which was that of Boeckh, is now at long last coming into its own. Le Gentilhomme has since then devoted a very able paper in the *Revue Numismatique*, 1934, pp. 1 ff. to the problems of the *quadrigatus*, and comes to the conclusion that it, and the Janus—Prow *Aes Grave* with it, were first issued in 235 B.C. The Rev. E. A. Sydenham, working on the basis of our paper of 1932, has written an equally valuable study of the Roman victoriate, in which he states a very strong case for a date of origin not very much before 207 B.C. (*Num. Chron.*, 1932, pp. 73 ff.).

No account of research in our generation would be complete without some notice of the work of Walter Giesecke.⁴¹ For many years he has devoted his great talents to the early history of Roman coins, and has covered much ground in his adventurous and progressive studies. If he has not yet produced a *Systematik* as inwardly coherent as that of Haeberlin, he has enriched us with a number of detailed suggestions of the highest value. He has interpreted the various series of ROMANO-ROMA didrachm as issues for different districts of Italy. He has insisted on the obvious, but generally neglected fact, that Oath-scene gold, *quadrigatus* didrachm, and Janus—Prow *Aes Grave* to all appearances form one single system. He has observed that the Mars gold, the "X" denarius,

⁴¹ His fine *Italia Numismatica*, Leipzig, 1928, contains the most complete statement of his views. It supersedes his *Münzreden Roms bis zum Jahre 268 v. Chr.*, Berlin, 1922. Earlier articles by him will be found in *Frankfurter Münzzeitung*, 1919, pp. 101 ff.; *Berliner Münzblätter*, 1922, pp. 30 ff., 1930, pp. 88 ff.

and the sextantal As form a second similar system that bears every mark of deliberation and is little suited to be the emergency issue of a war; further, that the unit of these gold pieces (LX, XXXX, XX) must be the same as that of the denarius (X)—the As, and not, as Pliny says, the sestertius. Till recently Giesecke has been fettered by the "X" denarius of 269 B.C. In his latest work he has followed us in abandoning it,⁴² and is out on a fresh voyage of discovery. He still assigns the "Romano-Campanian" coinage (our classes I and II) to a date behind 269 B.C., but brings in with that year the quadrigatus as the first real denarius. He insists on dating the Janus—Prow from about 280 B.C.—rather wilfully, as he makes no attempt to shake its connexion with Roman sea-power in the first Punic War, which is quite undeniable.

The "X" denarius cannot yet be traced with certainty, but must have arisen early in the second Punic War. The fall in the weight of the As was due partly to the unwieldiness of the libral piece, partly to a fall in the value of *Aes*. The victoriate has a place intermediate between quadrigatus and "X" denarius. The Mars gold may follow within a few years of the denarius—perhaps in 209 B.C. The work of Giesecke has again and again crossed our own. While working essentially on distinct lines, we have borrowed ideas from him and he from us. In some cases he and we have reached identical conclusions independently. Whenever we have been conscious of indebtedness we have tried to acknowledge it in full.

⁴² *Deutsche Münzblätter*, 1934, pp. 181 ff., 221 ff.

After the long course of exploration which we have been following, where does research stand to-day?

Let us look first at the coins. We have now good analyses of most of the material. We can quickly collect and test the arguments for any particular attribution to date or mint. On some points we have reached a general agreement, and an agreement of conviction, not the mere acquiescence of indifference. We are agreed:

- (1) That there is a long chapter of Roman coinage prior to the "X" denarius. We have finished with Eckhel's "foreign coins in the Roman name".
- (2) That, of the silver in that chapter, first come the ROMANO issues, then the kindred ROMA issues and the quadrigatus.⁴³
- (3) The Victoriata is a drachm of the light series of didrachms. It overlaps the denarius, but is certainly not a later coin than it. It is most easily explained, as by Giesecke, as intermediate between quadrigatus and "X" denarius.
- (4) That the small bronze coins associated with ROMANO-ROMA silver represent token coinage.⁴⁴
- (5) That the bars are approximately contemporary with the first *Aes Grave* and that they are, if not money in the full sense of the word, at least some form of currency.
- (6) That the ROMA silver and the light "Latin" *Aes Grave* run in parallel series. This is Haeblerlin's great discovery. His interpretation of it—one mint for all but distinct areas of circulation for silver and *Aes*—is disputed.

⁴³ It may be debated whether the light ROMANO issue is or is not later than the three heavier ones, and whether or no the quadrigatus begins with or before the other ROMA issues.

⁴⁴ Giesecke should be mentioned as an exception to this agreement.

- (7) That, as the "X" denarius is certainly contemporary with the sextantal As, all heavier Asses must be looked for earlier than its introduction.
- (8) That the quadrigatus didrachm and the Janus—Prow *Aes Grave* are more obviously and closely connected with the later coinage of Rome than the Roman-Campanian silver and the "Latin" *Aes Grave*.

While this is admitted, we must not rush to the unnecessary conclusion that quadrigatus and Janus—Prow *Aes* are of the mint of Rome, the earlier silver and *Aes* of other mints.

It will probably be possible very soon to add

- (9) That the "X" denarius was not struck till many years after 269 B.C. and that we must rearrange the earlier coinage in light of this recognition.

As regards our tradition, we are now agreed, that of our three classes of tradition, (a) the tradition of the kingly period is valueless: it has no relation to any coins known to us. Class (b)—the tradition of the Republic to c. 300—is hardly in better case. Coinage is frequently sketched in as part of the background of Roman life, but there are absolutely no facts of coinage to handle; it is only an innocent and half-unconscious throwing back by later writers of the present on the past. It is only our class (c), the later tradition, which centres round Pliny and Festus, that concerns us. It has its own inaccuracies and inconsistencies, but they are not past hope of cure by careful criticism and comparison of the evidence. For, shadowy as the tradition still remains, it is now beyond doubt the shadow of a reality.

We hope in a future number of the *Chronicle* to proceed to the positive interpretation of the pre-

denarius coinage, for which these prolegomena have been clearing the way.

H. MATTINOLY.

E. S. G. ROBINSON.

Postscript.—Attention should also be called to the following publications, most of which have appeared in the last year or two, since this paper was first written: Franz Altheim, "The First Roman Silver Coinage", *Transactions of International Numismatic Congress, 1936*, London, 1938, pp. 137-50; Lorenzina Cesano, "Victoriatu Nummi", *Riv. Ital.*, 1912, p. 299; "Della circolazione dell'Aes Gravo in Italia", *Atti e Mem.*, i (1913), p. 47; "Di due piccoli ripostigli di argenti Cartaginesi e dei Brettii", *Trans. Int. Num. Congress, 1936*, pp. 56-67, esp. 66-7; W. Giesecke, *Antikes Geldwesen*, Leipzig, 1938, pp. 138-60; Carl Kùthmann, "Die römisch-kampanischen Didrachmen und das Schwerkupfer", *Berliner Münzblätter*, 1930, pp. 55-7; H. Mattingly, "The Property Qualifications of the Roman Classes", *J.R.S.*, 1937, pp. 99-101; H. Mattingly and E. S. G. Robinson, "Die Datierung des römischen Denars, &c.", *Die Welt als Geschichte*, iii (1937), pp. 69-80, 300-19 (German translation of the article in *Proc. B.A.*, vol. xviii, by Frau Professor Altheim, with additional notes by authors); J. G. Milne, *The Development of Roman Coinage*, Oxford, 1937; K. Pink; "Neue Forschungen und Wege in der römischen Numismatik", *Bonner Jahrbücher*, Teil 2, 1936, pp. 140, 141; A. Sambon, *L'Aes Grave Italico*, Milano, 1907; H. Mattingly, "The Romano-Campanian Coinage: an old problem from a new angle", in *Journal of the Warburg Institute*, i (1937), pp. 197 ff.

H. M.

E. S. G. R.

II.

THE EARLY COINAGES OF SICILY.

[IN "Greek Coinage" I said that probably the earliest coins struck in Sicily were those of Zancle with the obverse type repeated incuse on the reverse, as in several South Italian series. This conclusion followed from the view adopted in the *Historia Numorum*, that this issue was to be placed before those with relief-types on both faces: the latter seemed to be artistically contemporary with the first series of Himera and before the first of Naxos, the other claimants for the precedence in time. But fuller acquaintance with the coins, more particularly those in the Lloyd collection, which Miss Lloyd has generously deposited at the Ashmolean for the use of students, has caused me to alter my opinion. In support of the order now given, I have used some conclusions which Alan Blakeway and I reached in a joint investigation intended to be included in his studies of Greek trade relations with the West: they are pertinent, and may be of service to any one who takes up his work.]

The early silver coinages of Zancle have been very carefully described by Hertha Gielow,¹ who arranged them in four groups—(1) the coins with incuse reverse and legend ΔANKΛE; (2) those with double relief and legend ΔANK; (3) those of similar fabric with four raised rectangles on the sickle of the obverse and legend ΔANK or ΔANKΛ; and (4) those with legend

¹ *Mith. Bay. Num. Ges.*, xlviii (1930), pp. 1-54.

PANKLE.² This order agrees with that adopted in the *Historia Numorum*; but from the point of view of style it is not convincing. Both artistically and epigraphically the treatment in group (1) looks more advanced than in either (2) or (3): the dolphin is more carefully worked and better fitted into the field, the border is more regular, and the lettering later in form; also the name of the city is given in full, which on the analogy of most Greek coinages would suggest that these coins are later than those with an abbreviated name, though there are exceptions to this rule.

There seems to be an assumption, that coins of the "South Italian" fabric with incuse reverse must necessarily be earlier than double relief coins, underlying the chronological arrangement given above. But, while it is true that this style was the first to be used in several cities of South Italy, it was essentially a local fashion, and only used in a tentative manner outside its home area: its vogue at Tarentum was brief, at Rhegium and Zancle probably still briefer. There were coins of the ordinary Greek fabric, of Aegina and Corinth and Euboea, which would be quite as well known to the Sicilian cities as those of Metapontum or Sybaris or Croton; and if a city wished to start a coinage of its own in the sixth century it would not need to go to Italy for a model: as a matter of fact, the first coinages of most Sicilian cities show more connexion in style amongst themselves than with any outside city. If Zancle, for a single issue, took up an exceptional fabric, that does not prove that issue to

² For illustrations, see the plates in the article mentioned in note 1, and Babelon, *Traité*, Pl. LXXII. 1-8.

have been prior to those which are more definitely Sicilian in style.

A further clue can perhaps be found in the coins of the incuse-reverse fabric struck at or for Rhegium,³ the nearest city of the Italian coast at which it appeared. As at Zancle, the issue at Rhegium seems to have been brief: but the type used for it is one which is not found on any other Rhegian coin, and the issue, unlike that at Zancle, is isolated and separated by a considerable period of time, if we can judge by style, from the next series. Regarded as a member of the South Italian group, the Rhegian coin is certainly not among the earliest: comparison with the issues of the same class at its next neighbour, Canlonia, suggests that it comes in the second half of the series, when the treatment was less severe and the guilloche border was modified to one of dots. It is not improbable that the occurrence of this fabric at Zancle may have been connected with its occurrence across the strait at Rhegium, as the artistic style of the two sets of coins is approximately contemporary.

As regards the relation of groups (2) and (3) of the Zanclean issues, in addition to the distinguishing mark of the raised lumps on the sickle in (3), there is a difference in style observable: the two groups shade into one another, but taken as a whole the coins of group (3) are cruder in execution than those of (2), and the design is more cramped and clumsy: their inferiority is not, however, attributable to undeveloped art, but looks more like a degradation. On this ground it would appear that they have been correctly placed

³ Babelon, *Tr.*, Pl. LXXI. 8.

after group (2), and represent a period when the engraving of the dies for Zancle was in the hands of a feebler workman than his predecessor. This suggests a reason for the appearance of the Italian fabric at Zancle: the authorities may have been dissatisfied with the products of their mint, and, when they heard of a better artist in Italy, they may have invited him over to design an issue for them.

This reason seems more probable than an alternative one, that the adoption of the exotic fabric at the two cities was caused by political considerations. In the next century, of course, the changes in the political relations of Rhegium and Zancle, by that time called *Messana*, are clearly reflected in their coinages: but the reflection is in the types, not in the fabric; and the technicians of the mint would not be likely to alter their tools as a proof of a change in their politics. There might be an explanation of the simultaneous adoption in the possibility that the two series were struck at the same mint, either at Zancle or at Rhegium; and, in view of the isolated nature of the Rhegian issue, it seems not unlikely that it was an experimental one, ordered from and produced at the established mint of Zancle, when Rhegium had no mint of its own. But this hypothesis does not connote any political relationship between the two cities: the striking of coins at a mint on the order of a foreign country is a mere business relation, which is common to-day and may be traced in several instances in Greek coinages.

It should also be noticed that the vogue of the incuse-reverse fabric in South Italy was due to artistic and technical considerations. A school of die-

engravers had come on the scene, who worked out their designs with greater delicacy than any contemporary artists on the east of the Adriatic; and, if the effect of their work was not to be lost, it was imperative that measures should be taken to secure that the design should be more fully and evenly struck up over the whole field of the obverse than could be done with the punches used in Greece. The Corinthians had gone some way in this direction by the use of a flat punch with a shallow swastika in the centre (as, somewhat later, several of the Sicilian cities did by using flat reverse dies), but this was not adequate for the more elaborate Italian designs. So the main lines of the obverse design were repeated on the punch, and the metal of the flan was thus driven home into all parts of the lower die. The broad border had a similar artistic purpose: it served as a kind of collar to control the spread of the metal and produce a neatly rounded coin. The school, in fact, aimed at securing employment by the superior merits of its work; and so it would be natural that, when the level of art in the mint at Zancle had fallen low, a South Italian expert should be invited to improve the coinage. The man who came over seems to have been a good engraver, but a poor technician: perhaps, however, the weaknesses in the striking of the coins may be due to the lack of knowledge amongst the workmen of the Zanclean mint.

The fabric did not win the popular favour, apparently, in Sicily, and was soon abandoned. But the artistic stimulus lasted, as is shown by the coins of group (4), in which the obverse design is more elaborately and skilfully treated than in the first two groups,

the fabric of which is resumed: the dolphin is less natural, it is true, but this is due to the adoption of a conventional type, which bears the same relation to the actual as is found in heraldic creations, and is a witness to the dictation of the artists. The Zancleean designers had also learnt lessons in the spacing of the field and the treatment of the border from the Italian school: so that the style makes it more probable that group (4) came immediately after group (1) than that groups (2) and (3) intervened.

The weights of the coins do not give any help in the determination of the order of the issues: in all the groups they are very irregular, least so perhaps in group (1), which may be due to the greater skill of the workmen. But even in group (1) there is a range from 91 to 79 grains: in (2) the range is from 90.5 to 74, in (3) from 92 to 63, and in (4) from 91.5 to 66.5. The mean weights are about the same in all, so that it is clear that throughout the period of these issues there was no exact standardization at Zancle, and that, if the coins had any denomination in local currency, it cannot be discovered from their weights. So there is nothing in this to upset the conclusion reached on the grounds of style, that the incuse-reverse coinage of Zancle came between group (3) and group (4) of Hertha Gielow's classification: and her groups (2), (3), (1), and (4) will be cited hereafter as Zancle (*a*), (*b*), (*c*), and (*d*).

If (*a*) is accepted as the first issue of Zancle, there are two cities of Sicily which struck coins of an earlier style than this—Himera and Selinus: the claim of Himera to a leading place in the history of Sicilian coinage has been recognized, but that of

Selinus has had less notice: the date assigned in the *Historia Numorum* to the first coins of Selinus is as late as 430-466.

The series of Himera begins with a group of coins which present some notable peculiarities of treatment.⁴ The obverse type is a cock, designed in nearly all cases with elaborate attention to detail, in which there are slight variations: it is surrounded by a border of dots, which is sometimes composed of alternating large and small dots, at other times of dots divided by strokes in a manner which seems to anticipate the Seleucid bead-and-reel border. The two initial letters of the name of the city are normally given, and sometimes two further signs, for which no satisfactory explanation has been suggested: it is possible they are Punic letters. The reverses are struck with broad flat dies, which can hardly be described as punches: on them is an incuse square divided into four equal parts, which are in turn divided diagonally, and the alternate compartments filled; round this is a sunk border of dots, another novelty of treatment. This group, which probably covered a period of fair length, as the coins are not uncommon and show some development in style, was succeeded by one of similar fabric, but with a hen in place of the divided square on the reverse, the square sunk border being retained:⁵ the alternation in the dotted border of the obverse occasionally recurs in this group, but as a rule the size of the dots tends to diminish. The same types are found in the next

⁴ *Sylloge Nummorum Graecorum*, ii, *The Lloyd Collection*, Pl. XXXV. 1003-5: Babelon, *Tr.*, Pl. LXXX. 1-7.

⁵ *Sylloge*, Pl. XXXV. 1006-10: Babelon, *Tr.*, Pl. LXXX. 9-12.

group, in which the reverse is struck with a round-headed die, smaller than the obverse die in surface, and the border disappears.⁶

These three groups will be called Himera (*a*), (*b*), and (*c*), and most of the coins of (*a*) look decidedly earlier in style than any of the coins of Zancle: the peculiarities of the Himeraean treatment make comparison rather difficult, but the cock has a more archaic air than the dolphin of Zancle, and the inscriptions are in earlier lettering. The execution of the dies at Himera is much better than at Zancle, till Zancle (*c*) and (*d*), and this may affect the comparison: it is probable that the issue of Himera (*a*) continued till after the commencement of Zancle (*a*). But on grounds of style it seems certain that the coinage of Himera began before that of Zancle.

At the head of the issues of Selinus may be placed a coin, at present unique, in the Lloyd collection:⁷ this has the parsley-leaf type on the obverse which is found on all the early issues of Selinus, but the reverse shows an incuse unlike anything known in Sicily. It is a rough square divided by lines radiating from the centre into five compartments of irregular shape, and has a very archaic look. It has been suggested that this is an unofficial issue or a copy: but against this theory it should be noted that neither the leaf on the obverse nor the incuse on the reverse could have been derived from any known example of the early issues of Selinus, and the treatment of the obverse is not of the character that would be probable in an un-

⁶ Babelon, *Tr.*, Pl. LXXX. 13-14.

⁷ *Sylloge*, ii, Pl. XLII. 1203: Babelon, *Tr.*, Pl. LXXIX. 1.

official product: it is holdly executed, but the details, such as the veining of the leaf, are not neglected, and artistically the effect of the design is superior to that of any other early coin of Selinus. The copy theory can certainly be ruled out, and if it is an unofficial issue—our knowledge of the history of Selinus does not give any clue as to what might constitute an unofficial issue of coins—this would not alter its claim to be earlier than the presumed official issues, as an unofficial coin would not be likely to be both more archaic and artistically better than official coins issued at the same time with it.

The group which seems to come next to this coin⁸ has a rather stylized parsley-leaf on the obverse, and on the reverse a square incuse divided into ten compartments: the division is made by quartering the square into four squares, of which two alternate ones are halved by a diagonal line, the other two trisected: one section in each quarter is filled. The effect is curious and not pleasing; and in another group,⁹ the execution of which is still more formal, the four quarters of the main square are all trisected, and each third compartment filled. This is succeeded, as at Himera, by a group¹⁰ where the patterning of the reverse is replaced by a type, in this case a parsley-leaf as on the obverse: in a few specimens, which may be the earliest, the leaf is surrounded by a square line-border with dots outside, but this disappears and the four initial letters of the name of the city are placed in the

⁸ *Sylloge*, ii, Pl. XLII. 1204-6: Babelon, *Tr.*, Pl. LXXIX. 2.

⁹ *Sylloge*, ii, Pl. XLII. 1207-9: Babelon, *Tr.*, Pl. LXXIX. 3-6.

¹⁰ *Sylloge*, ii, Pl. XLII. 1210-14: Babelon, *Tr.*, Pl. LXXIX. 7-11.

corners of the incuse square : the treatment of the leaf on the reverse of these is noticeably more natural than that on the obverses of either this or the preceding group. All these coins, except the first unique one, are struck with broad flat reverse dies, like the coins of Himera. The first coin will be called Selinus (*a*), the two groups with a patterned square on the reverse (*b*) and (*c*), that with a leaf on the reverse (*d*).

On technical and artistic grounds, Selinus (*b*) and (*c*) seem to run parallel with Himera (*a*), and Selinus (*d*) with Himera (*b*): but Selinus (*a*) must be earlier, for the reasons already stated, and may certainly be regarded as the earliest coin at present known of Sicilian origin. Zancle (*a*) probably began some years after Himera (*a*) and Selinus (*b*), and Zancle (*b*) seems to bear much the same relation to (*a*) as Selinus (*c*) to (*b*). Himera (*b*) and Selinus (*d*) may be roughly contemporary with Zancle (*d*). Zancle (*c*) is clearly an intrusion, which probably came before the last three.

For an absolute dating, historical and economic considerations must be weighed, and the question why Selinus and Himera should have struck coins earlier than the cities in the east of Sicily is involved. The trade outlook of these two was not the same as that of cities like Syracuse and Naxos and Gela, which were in direct communication with Greece, and acted as depots for the shipping of Sicilian produce to Greek ports and the introduction of Greek manufactures to Sicily: Himera and Selinus were much more concerned with the western trade, and probably dealt directly with Spain. There is much archaeological evidence of the activities of Greek merchants in the east and south of Spain in the first half of the sixth century, and Himera

and Selinus would be the natural depots for these merchants. Till the fall of Tyre, the Phoenicians would not be in a position to prohibit Greek trade with Spain: their starting-point was Tyre, and Carthage was only an intermediate station, and if they had tried to block the strait from Carthage the Phocaeans and other Greeks could not only have countered this from Selinus, but could have intervened when the Tyrian ships were passing south of Crete and Greece across the line from Greece to Egypt.

The commercial control of the western Mediterranean was altered in the second half of the century, partly in consequence of the western movement of the kings of Persia. The merchant fleet of Tyre, so far as it could get away when the city was taken by the Persians, would certainly take refuge at Carthage, and the same may be said of the business men; and this would mean not only a considerable accession of population and capital to Carthage and a rise in its mercantile rank from that of a subordinate to that of a principal, but a material improvement in its strategic position for the purposes of the western trade. The base of action for the Carthaginian shipping was now outside the area that was dominated by Greece or its colonies: the risky stretch in the voyage from Tyre to Spain was eliminated: and above all the new base was excellently placed for supervising the straits. This strategic advantage, with their comparative nearness to their market, would enable the Carthaginian merchants not only to capture the bulk of the Spanish trade, but to dictate terms upon which others might participate in it. It would naturally take some time

before the new power of Carthage could become effective, and there are no traces of any interference with Greek shipping before the middle of the sixth century: but the clash of interests was precipitated by the advance of Persia into Ionia. When the Phocaeans emigrated in a body to Massalia and proposed to found a new city in the west, it meant that the old commercial competitors of the Tyrians were following the Tyrian example and moving their centre of business nearer to the foreign market: and at Massalia the Phocaeans would have been dangerous rivals in Spain. So the Carthaginians took steps to prevent their settlement, and with the aid of the Etruscans harried the Phocaeans out of the Tyrrhenian sea. Thereafter for many years Selinus, Himera, and Cumae were the limits of Greek trading voyages to the west.

But the stoppage of Greek traders did not mean the stoppage of Greek trade: just as the Etruscans continued to take large quantities of Greek manufactured articles through the South Italian markets, though no Greek ship could enter an Etruscan port, the Carthaginian merchants would be quite prepared to carry Greek goods on from the barrier to Spain or Carthage. Himera and Selinus were the natural ports of transfer, and it may be taken as probable that through them the same kind of trade went on between Greece and Spain as before, the only difference being that from Sicily to Spain and back the carriage was done by the Carthaginians. This trade, so far as exports from Spain were concerned, would be mainly in silver: silver was the first commodity which the Greeks had obtained from Spain, and there is no record of any

other in the early period: while, after the Carthaginians took control, the staple must have been the same: Carthage had not, so far as is known, any manufactures for export, and the Sicilians would not want African corn: Spanish silver was then, as in later times, the chief article which the Carthaginians could take to the Sicilian markets. Till the relations of Himera with Carthage were upset by Theron of Agragas in the beginning of the fifth century, there is no record of any trouble in the west of Sicily between Greek and Carthaginian cities, and it is reasonable to assume that Himera and Selinus were markets where the merchants of the two nations met and did business.

In the sixth century any silver that came to Sicily from Spain would certainly be uncoined: but, if the Greeks of Himera and Selinus wished to pass it on eastwards, it is most probable that they would turn it into coin. After Pheidon of Argos had shown the advantage of putting silver on the market in this form, in the middle of the seventh century, the idea was taken up by cities which controlled supplies of the metal, and by 600 there were several competitors in the field. The first great commercial coinages, of Aegina and Corinth, were struck at central depots to which silver was brought from a distance, at Aegina from the islands, at Corinth from Paeonia; but before long, probably, the Thasians realized the advantage of minting the silver where it entered the Greek circle, and started their coinage with the produce of the Strymonian mines. The position of Himera and Selinus was very similar to that of Thasos, and it is likely that their action was similar in the treatment of the Spanish silver: they would naturally make up

the coins on a weight standard to suit the markets with which they dealt, giving the best weight they could for the stater. Under these conditions there is an obvious explanation of the fact that the average weight of the stater of Himera is about a grain more than that of Zancle: the eastward line of trade from Himera would certainly go to its mother city Zancle, which would bring it into touch with the Corinthian connexion; if it had got its silver from Zancle, the extra cost of transport would have made the price of silver at Himera higher than at Zancle, and the stater would consequently have been lighter; but with an independent supply of silver the Himeraeans could afford to make their stater slightly heavier than the Zancleau, and so render it more popular.

The probability that Himera and Selinus obtained their silver from some source that was not under Greek control is supported by the discovery in a hoard of miscellaneous silver from Taranto of a rectangular ingot stamped with a mark which E. Babelou recognized as the reverse pattern of the early Seliuntine type.¹¹ Square or rectangular ingots do not occur in Greece, where the round coin served all the purposes of an ingot: but they are familiar in Italy. Such an ingot would only reach the mint of Selinus from a western source, which must have been Spain, the one western source of silver at this period. If the officials at the mint did not need it for coin, but had occasion to ship bullion to Italy, where such an ingot would be as acceptable as a coin, they would mark it with a badge distinctive of their mint, and for this purpose

¹¹ *Rev. Num.*, 4, xvi (1912), 32.

naturally used one of their reverse dies rather than an obverse, although the latter was the more distinctive of the city, because the reverse die was a punch and the obverse an anvil die.

The earliest Sicilian coinages seem to have been related to the weight standard which was used in Euboea and Corinth, with a stater of about 130 grains: the difference in the division of the stater, into three drachmas at Corinth and two in Euboea, would not matter for Sicilian trade at the beginning of the sixth century, when the conception of the drachma as a weight unit would hardly have become familiar in Sicily, especially if the Greek tradition is right in ascribing the conversion of the drachma from a measure of value into a weight unit to Solon. The stater of Selinus would pass as the bullion equivalent of the Corinthian or Euboean, that of Himera or Zancle as two-thirds, and so a payment in coins of different mintages could easily be calculated. It is probable that the Euboeo-Corinthian standard was the base, as there is little trace of the use of Aeginetan coins in Sicily, but a further equation to the Aeginetan standard would not be difficult. What denominations, if any, were given to the Sicilian issues at this period remains uncertain, as there is no evidence on the point: at a later date there were commercial equations with the Greek and non-Greek Sicilian currencies, but it may have been some time before these came into use.

As has already been mentioned, the development of Greek city coinages began in the second half of the seventh century, and by 600 there were several issues of importance. The first issues of Thasos are probably not later than 600, and, as the conditions in the west

of Sicily were economically just as favourable as those at Thasos to such an enterprise, there seems no reason why the first unique coin of Selinus should not have been struck about 600, with which date its style would well agree. Selinus (*b*) and Himera (*a*) look to be some years later, and may have begun about 580: this is the time at which the Greek trade with Spain appears to have been most flourishing, and, as these issues are fairly extensive, they may reflect the commercial prosperity. Zancle (*a*) has been shown to be probably later still; the weights of the coins suggest that they may have been restruck on coins of Himera, so Zancle may have followed the example of Himera after a few years, say about 560.

Other Sicilian cities probably did not begin to strike coins till the limitation of Greek maritime enterprise in the Tyrrhenian sea and the western Mediterranean by the joint action of the Carthaginians and the Etruscans began to be effective, about 540. This would tend to divert the line of trade from Corinth to Etruria to some extent, as goods for Etruria could not be taken in Greek ships beyond Cumae, and if they had to finish their transport by a land journey from Cumae, they might just as well be put on shore at Tarentum or Metapontum and start the land journey there: the avoidance of the risks of the straits would compensate for the greater length overland. There would be fewer Corinthian ships coming on to the straits, and consequently the amount of Corinthian coin which reached Sicily would diminish: then cities like Syracuse and Acragas, which had used the Corinthian coins, would find it necessary to supplement it by issues of their own. The first issue of

Syracuse¹² is very similar in technique, though not in art, to Zancle (*d*), the first coins of Acragas¹³ look a little later: both sets were struck before the vogue of round-headed punch-dies, which seems to have come in about 510, and possible dates are for Syracuse about 535, for Acragas about 525. Gela, so far as known specimens show, did not begin to strike till after the introduction of the round dies—i.e. about 510: there is a definitely earlier coin of Naxos,¹⁴ which might be dated back to 530.

Himera (*b*), Selinus (*d*), and Zancle (*d*) may have begun about 540, and Zancle (*c*) have been issued, with the corresponding coins of Rhegium, during the reconstruction of lines of trade about that year. Himera (*c*), struck with round-headed dies, would come after 510: it is noticeable that there are no corresponding staters of Selinus, the only early issues there from round-headed dies being fractional pieces. This suggests that towards the end of the sixth century the silver trade from Spain may have been concentrated at Himera, which at the beginning of the century would naturally deal with the shipment of the metal towards Greece, while Selinus would be a more convenient depot for the Ionian merchants: in that case the interruption of Ionian trade after the Persian conquest would explain the discontinuance of the issue of staters at Selinus.

J. G. MILNE.

¹² *Sylloge*, Pl. XLV. 1276-7: Babelon, *Tr.*, Pl. LXXIV. 2-4.

¹³ *Sylloge*, Pl. XXVI. 785-8.

¹⁴ Babelon, *Tr.*, Pl. LXXII. 15.

MISCELLANEA.

A SECOND FIND OF SILIQUAE FROM SHAPWICK.

At a distance of 6 ft. from the spot where the hoard of 120 *siliquae* described by Miss Anne S. Robertson in *Num. Chron.*, 1936, pp. 245-50, was found, a further discovery of 125 *siliquae* was made on June 18, 1937, by Percy Spiller Mullins of Meare, while cutting peat on Shapwick Moor. They had been placed in a pottery beaker—now repaired, and the whole enclosed in a pewter jug of typical Roman design. A reference to Miss Robertson's article will show that this was precisely the method used in the deposition of the earlier find.

With a few exceptions the 125 *siliquae* were of the commoner types of the emperors represented. The obverse bust is in all instances "diademed with pearls, draped and cuirassed" except on the one coin of Julian as Caesar, who is shown with bare head.

The coins were as follows:—[The weight in grammes is given in brackets and follows the order of the mintmarks. Weights of coins with different mintmarks are separated by a semicolon.]

Constantius II.

- 1-4. *Obv.* DN CONSTAN—TIVS PF AVG
Rev. VOTIS | XXX | MVLTIS | XXXX
 M.ms. LVG (3); PCON. (2.06, 1.9, 1.77;
 2.15.)

Julian.

5. *Obv.* DN IVLIANV — S NOB CAES
Rev. VOTIS | V | MVLTIS | X in wreath.
 M.m. TCON (2.03.)
- 6-7. *Obv.* DN CL IVLI — ANVS AVG
Rev. VOTIS | V | MVLTIS | X in wreath.
 M.ms. TR; TCON (2.19; 2.02.)
8. *Obv.* DN IVLIAN -- VS PF AVG
Rev. VOTIS | V | MVLTIS | X in wreath.
 M.m. PCON (2.16)

9. *Obv.* FL CL IVLIA — NVS PP AVG
Rev. VOTIS | V | MVLTTIS | X in wreath.
 M.m. LVG (1.89.)
10. *Rev.* VOT | X | MVLTT | XX in wreath.
 M.m. SLVG (1.96.)
11. *Obv.* DN FL CL IVLI — ANVS PF AVG (bearded bust).
Rev. VOT | X | MVLTT | XX in wreath (eagle at head of wreath).
 M.m. SCONST (2.06.)

Valentinian I.

- 12-13. *Obv.* DN VALENTINI — ANVS PF AVG
Rev. VRBS — ROMA
 M.ms. TRPS. (2.2, 1.78.)

Valens.

- Obv.* DN VALEN — SPF AVG
- 14-16. *Rev.* VOT | V | MVLT | X
 M.ms. RB (3). (1.96, 1.85, 1.81.)
- 17-44. *Rev.* VRBS — ROMA (Throne type).
 M.ms. RQ; TRPS. (24); TRPS (3). (1.96; 2.38, 2.3 (2), 2.24, 2.22, 2.2, 2.18, 2.16, 2.1, 2.09, 2.08, 2.07 (2), 2.03, 2.0, 1.98, 1.96, 1.91, 1.9, 1.87, 1.83, 1.72, 1.64, 1.62; 2.05, 2.02, 1.85.)
- 45-47. *Rev.* VRBS — ROMA (Cuirass type).
 M.ms. TRPS. (3). (1.99, 1.94, 1.87.)

Gratian.

- Obv.* DN GRATIA — NVS PF AVG
- 48-55. *Rev.* VIRTVS RO — MANORVM (Throne type).
 M.ms. AQPS; SMTR; TRPS (6). (1.85; 1.63; 2.18, 2.08, 2.06, 2.05, 1.89, 1.82.)
- 56-69. *Rev.* VRBS — ROMA (Throne type).
 M.ms. RXT; TRPS. (13; one coin has ... AVG of obverse ligatured ... A/G). (2.17; 2.38, 2.12, 2.09, 2.06 (3), 2.05, 2.0, 1.96, 1.87, 1.85, 1.8, 1.65.)

70-83. *Rev.* VRBS — ROMA (Cuirass type).

M.ms. LVGPS; TRPS (8); TRPS (5).
(2.08; 2.44, 2.38, 2.27, 2.2, 2.1, 2.09, 2.0,
1.83; 2.02, 2.0, 1.9, 1.89, 1.67.)

Valentinian II.

Obv. DN VALENTINIANVS IVN PFAVG (not
ligatured).

84-85. *Rev.* VICTOR — IA AVGGG

M.ms. TRPS (2). (2.81, 2.0.)

86-90. *Obv.* DN VALENTINIA — NVS IVN PF AVG

Rev. VRBS — ROMA (Cuirass type).

M.ms. $\frac{\quad}{AQPS}$ (5, two from identical *obv.* and
rev. dies). (2.27, 2.22, 2.05, 2.0, 1.94.)

Obv. DN VALENTINI — ANVS PF AVG

91-92. *Rev.* VIRTVS RO — MANORVM (Cuirass type).

M.ms. TRPS (2). (1.96, 1.91.)

93. *Rev.* VRBS — ROMA (Cuirass type).

M.m. LVGPS (2.19.)

Theodosius I.

Obv. DN THEODO — SIVS PF AVG

94-96. *Rev.* VIRTVS RO — MANORVM (Cuirass type).

M.ms. TRPS (3). (2.13, 2.06, 2.0.)

97. *Rev.* VRBS — ROMA (Throne type).

M.m. R \times B (1.96.)

Arcadius.

98. *Obv.* DN ARCADI — VS PF AVG

Rev. VRBS — ROMA (Cuirass type).

M.m. TRPS (1.84.)

Magnus Maximus.

Obv. DN MAGMAX — IMVS PF AVG

99. *Rev.* CONCOR — DIA AVGGG

M.m. TRPS (1.94.)

100-124. *Rev.* VIRTVS RO — MANORVM (Throne type).

M.ms. TRPS (25). (2.19, 2.18 (2), 2.17, 2.16, 2.13, 2.07, 2.06 (2), 2.04, 2.03, 1.98, 1.96, 1.89, 1.86, 1.82, 1.81, 1.79, 1.78, 1.68, 1.65, 1.63, 1.57 (2), 1.43.)

Victor.

125. *Obv.* DN FL VIC — TOR PF AVG

Rev. VIRTVS RO — MANORVM (Throne type).

M.m. TPRS (2.09.)

If we compare the present hoard, which may conveniently be known as "Shapwick II", with that described by Miss Robertson ("Shapwick I") we notice a striking difference in their composition:—

	<i>Shapwick I</i>	<i>Shapwick II</i>
Constantius II	8	4
Julian	4	7
Valentinian I	8	2
Valens	17	34
Gratian	11	36
Valentinian II	13	10
Theodosius I	11	4
Arcadius	16	1
Magnus Maximus	15	26
Flavius Victor	1	1
Eugenius	5	—
Honorius	21	—

Miss Robertson dated "Shapwick I", from the preponderance and the respective numbers of coins of the latest emperors represented, at c. A.D. 410. "Shapwick II" is a normal hoard of about two decades earlier. Not only does it omit Eugenius and Honorius, but its latest coins—the VIRTVS ROMANORVM (Cuirass type) TRPS of Valentinian II and Theodosius show in obverse and reverse the style which seems distinctive of the earlier part of that issue. Again, Miss Robertson expressly notes that the latest coins of "Shapwick I" "show slight traces of wear", while the latest of "Shapwick II" are in mint condition.

Despite their proximity in the ground and the identical means taken to preserve them, the two hoards, whether buried or not at the same time, must be regarded as typical of two widely separated periods.

The earlier coins of "Shapwick II" showed signs of wear but not such as to argue continuous use or a slow drift from abroad, while the later coins had evidently come straight from the place of minting. It may be recalled that in the Terling hoard the three Milan coins of Victor were all in mint state (except for corrosion in one instance) and all from the same pair of dies. In the present hoard there were two pairs of identities, all coins being somewhat worn. As these are found together after considerable circulation, it is at least likely that they represent a large batch shipped directly to Britain and circulating in the neighbourhood. The theory of "coin-drift" and arguments based upon it find no support in these hoards.

A well-known feature of late hoards found in Britain is the occurrence of *siliquae* cut down to a mere fraction—ranging from about two-thirds to about one-third—of their normal size and weight. There is no trace of this practice in either of the Shapwick hoards. In both, instances of clipping are few and the clipping confined to a furtive nibbling at the edge which it was no doubt hoped would pass unnoticed. But other late hoards such as, for instance, the Coleraine, S. Ferriby, and Icklingham II hoards contain a large number of coins which have been so frankly and drastically cut down that they clearly were not intended to be accepted at the value of the uncut coins found side by side with them in the same hoard. They must be symptomatic of some change in monetary conditions, and this, it would seem, could only be a rise in the value of silver.

Hoards which do not show this drastic cutting-down are the E. Harptree, which ends well before the death of Valens, Shapwick II, and Grovely Wood, both dated before the accession of Honorius, and N. Meadip, dated shortly after his accession. There is thus no evidence of the practice up to the reign of Honorius. But the Terling, Spraxton, Icklingham I and III, and Shapwick I hoards, though from their content—apart from the clipping—datable with the three "drastically cut down" hoards mentioned above, and so coming down at least well towards the middle of Honorius's reign, also contain evidence that the practice had not yet set in.

Now up to this point there had been, as all these hoards

show, a continuous influx of Honorian silver (as there had also been, I think, of his small 'Salus' bronze) coinage into Britain. But with the rise of the usurper Constantine III the flow must have been checked. His own coinage was not abundant and little of it could have been spared by him for Britain. With growing scarcity would come a growing appreciation in the value of silver and the need for a coin of lesser metal content than the *siliqua*. Hoards accumulated or deposited after the separation, while necessarily coinciding in their composition with the latest pre-separation hoards, would naturally bear evidences of an attempt at readjustment made by cutting down the *siliqua*. The chaotic state of the currency resulting from unregulated individual action in this attempt can be seen in the fantastic variation of size and weight of the cut-down coins, each of which, unless actually weighed, might well give occasion to dispute.

If what I have written above is correct, "cut-down" hoards must be dated after the usurpation of Constantine III, but how long after can only be inferred from the state of wear of the coins which compose them.

The few coins of exceptional rarity occurring in this hoard are the "*Virtus*" of Gratian with the Æ mintmark SMTR, the "*Concordia*" of Maximus, the "*Virtus*" of Victor with mintmark TPRS, and the "*Urbs Roma*" of Arcadius. But many coins of the commoner issues play a useful part in helping to settle by means of obverse or reverse die-identities the course of the late-fourth-century coinage. For example, a "*Virtus*" of Maximus has obverse identity with his "*Concordia*" in the British Museum; and a common obverse of Gratian links his "*Urbs Roma*" (Cuirass type) TRPS and TRPS and shows by the states of the die that of these two coins the later mentioned was the earlier struck. Much additional illustration, too, has been gained of the interchange of portrait between emperors within the same issue.

The high average weight (1.99 grammes) of the *siliquae* in this hoard must be noted. For the contrast offered by the coinage which was struck after the death of Theodosius we can turn to Mr. B. H. St. J. O'Neil's "The Terling Treasure" (*Num. Chron.*, 1933, pp. 145 ff.) where we find the Milan *siliquae* of Arcadius and Honorius averaging 1.3 grammes.

J. W. E. PEARCE.

ICKLINGHAM II REDIVIVUS.

THIS hoard, which I described in the *Numismatic Chronicle*, 1929, pp. 319 ff., has since passed into my own possession, and I have felt myself at liberty to submit many coins previously wholly or partly indecipherable to a drastic process of cleaning. One result has been the discovery of at least two hitherto (I believe) unnoted varieties of the common *Salus reipublicae* type. But recent discussion on the later Roman currency in Britain has suggested other ways also in which the evidence from this hoard might be helpful, and I venture briefly to summarize it here.

The Clipping of Silver. Nine-tenths were clipped, including the two earliest (Constantius II) and the twelve latest (Honorius). Julian is represented by coins varying between 2.24 gm. and 0.8 gm. Two-thirds of the clipped coins are between slightly over and slightly under 1 gm. That one is cut to a neat decagonal shape seems to show that the clipping was open and unashamed, and not the gradual result of many dishonest acts. It is hard to see how any common denominator could be found for these coins except by weighing.

It is fortunate that the two unique coins—of Gallienus Caesar and Flav. Max. Helena—presented by the former owner of the hoard, Mr. H. C. Beck, F.S.A., to the British Museum, were not clipped, but they were respectively of billon and of (apparently) base silver.

Radiate and Constantinian Periods. On the whole the barbarous imitations show more signs of use than the legitimate issues. An *Æ* 2 of Daza was quite unworn and intact; an unworn *Beata tranquillitas* was, on the other hand, cut down to a weight of 0.7 gm.

Constantian Period. Some legitimate coins were cut down and many imitations were struck on small-size flans, ranging in weight down to 0.6 and 0.4 gm. The four of Magnentius were all barbarous.

Valentinianian Period. Less than half the *Æ* 3 were left intact. None were carefully halved—a common procedure with these coins—but some were roughly broken and some cut down to a small *Æ* 4 size.

Theodosian Period. Of the *Victoria Auggg* (single Victory) type there were 541, of the *Salus reipublicae* type 320. Their more precise classification (when possible) is as follows:—

VICTORIA AVGGG (Single Victory).

Treveri 31. All seem to have broken obverse legend. With mint-mark $\overline{\text{TRP}}$ there occurs a single coin of Arcadius (? rev. division). With mint-mark $\overline{\text{TR}}$ we have (a) *Victori-a Auggg* for Valentinian II (1 example), Theodosius (5), Arcadius (5), Eugenius (? 1). The mint-mark of Eugenius's coin is not visible, but this reverse division seems confined to Treveri; the rest of the coin is exceptionally clear: (b) *Victori-a Auggg* for Arcadius (7) only. Two of these have the spelling $\overline{\text{ARCAPIVS}}$, commonly found for him on the *siliquae* on which he shares reverse identities with Eugenius.

Of the total of 31 Treveran coins Arcadius has 18.

Lugdunum 43. With mint-mark $\overline{\text{LVGP}}$ we have Valentinian II (3), Theodosius (2), Arcadius, (a) with unbroken obverse legend (10), (b) with obverse divided I-V (7), Honorius, with unbroken obverse legend (4), Eugenius (1). But the most interesting coins are those with mint-mark

$\frac{\text{V}}{\overline{\text{LVGP}}}$ with which both Arcadius (2) and Honorius (4)

have broken obverse legend. Until further evidence proves me wrong, I must consider these as definitely post-Theodosian.

Arelate 192. The mint-marks are $\overline{\text{PCON}}$, $\overline{\text{SCON}}$, and $\overline{\text{TCON}}$. The emperors share the three *officinae* as follows: Valentinian II P (13), T (1, barbarous), Theodosius P (2), S (11), T (5), ? letter (5). Arcadius P (10), S (13), T (34), ? letter (21, one with $\overline{\text{CO}}$), Eugenius, ? letter (1). A coin with $\frac{\text{S}}{\text{■}}$ appears from the portrait to be of Eugenius.

A more complete mint-mark in the Third Richborough Report justifies us in attributing this coin to Arelate.

Of coins unattributable to mints Valentinian II has 4, Theodosius 11, Arcadius (a) "unbroken" 56, (b) I-V 10, ? division 19, Honorius, "unbroken" 9.

SALVS REIPVBLICAE

Rome 140. The mint-marks are $\overline{\text{RP}}$ to $\overline{\text{RE}}$, shared by the emperors as follows: Valentinian II P (3), B (4), ? letter (8), Theodosius B (4), Q (8), ? letter (5), Arcadius P

(1), B (3), E (1), ? letter (5), Honorius B (5), Q (3), E (1), ? letter (25); his obverse legend, where legible, always begins *Dn On* - - .

The strange variety with obverse *Dn Hono-ri Aug* occurs in five examples. This was first noted by Mr. F. S. Salisbury from the Weymouth hoard, but a corresponding coin of Arcadius has not, to my knowledge, been recorded. There is one, however, in the present hoard, having obverse *Dn Arca-di Aug*, and I have since seen another at Richborough.

A coin with obverse division [?]-*ius p f Aug* and mint-mark lacking can be identified with the help of some half-dozen coins lately seen at Richborough as of Honorius and from the mint of Rome. None of the Richborough examples is complete, but their cumulative evidence makes the attribution certain. One mint-mark reads RP.

Aquileia 54 with mint-marks AQP, AQS, shared thus: Valentinian II P (8), S (5), Theodosius P (4), S (9), ? letter (1), Arcadius P (18 and one barbarous), S (4), ? letter (3), Honorius S (1).

Unattributable to mints are 126, of which about 100 are probably of Rome.

VICTORIA AVGGG (Two Victories).

There are nine from Rome, equally divided between Valentinian II, Theodosius, and Arcadius. Theodosius and Arcadius each have one with the very rare mint-mark RQB. From *Aquileia* there are two, both of Theodosius.

J. W. E. PEARCE.

SILVER PENNIES FOUND AT NEWCASTLETON, ROXBURGHSHIRE.

On 27 April 1937 a group of 14 silver coins was discovered by some workmen employed by the Forestry Commission (Scotland) on opening drains in the valley of the Tweedenburn in Newcastleton Forest, at a distance of three miles from the town of Newcastleton, Roxburghshire. The coins were found at a depth of 7 in. below the surface of the peat; that is, lying on the mineral soil, which was apparently undisturbed. They were scattered over an

area of a few square feet, and no trace of any receptacle was found.

The coins were sent for examination to the Department of Coins and Medals at the British Museum, where they were identified as long-cross pennies of Henry III. The following list gives details:—

<i>Group.</i>	<i>Date.</i>	<i>Mint.</i>	<i>Moneyer.</i>
I.	1247-1248	London	Nicole
II.	c. 1248	London ?	Henri
III.	1248-1250	Bury St. Edmunds	Ioa ?
III.	"	Lincoln	Ricard
III.	"	"	Walter
III.	"	London ?	Henri
III.	"	London	Nicole
III.	"	York	Ion
V. A	1251-1260	London	Nicole
V. B	"	"	Henri
V. B	"	"	"
V. B	"	"	Ricard ?
V. C	"	?	Willem
V. (?)	"	Canterbury	Nicole

ROBERT KERR.

ERRATUM.

The following notes have been omitted from *Numismatic Chronicle*, 1937, p. 312:

1. *Oxoniensia*, ii (1937), pp. 93 ff.
2. *Num. Chron.*, 1937, pp. 124 ff.

REVIEW.

LOUIS ROBERT; *Villes d'Asie Mineure: études de géographie antique.* Paris, 1935.

THE evidence used in this series is to so large an extent numismatic that a review in the *Chronicle* should pay particular attention to the manner in which it has been handled; and there seems some risk that M. Robert may have placed more reliance on types of coins as clues to the position of towns than is quite safe. Finds of coins, at any rate of bronze or small silver, are of course fairly reliable guides when treated on the principles which have been laid down by Imhoof, Waddington, and Regling; and there is no serious ground for criticizing M. Robert's work on this side. But in one or two instances he lays stress on the common use of dies by two towns as proving their proximity, and this does not appear justifiable.

He quotes (p. 189) the three possible explanations of such a joint user suggested by Regling—the striking of coins for two towns at one mint, the loan of dies from one to another, or the travelling of operators from one town to another: all three are possible, but no one involves the proximity of the two towns. The travelling workman is more likely to have flourished in the early stages of coinage, when a holder of bullion wished to have it put on the market in the most advantageous form: he existed until comparatively recent times in India, and there is some reason to suspect his presence in England in Norman times, though it was then more usual for dies to be made in London and sent down to provincial centres for the actual striking of the coins. The loan of dies would not seem likely to have been practised much in Greece before Roman times, unless under a monetary convention: there are some instances in Crete where it is probable, and in one or two outlying regions Greek dies may have been obtained by “barbarians” who wished to produce a coinage on the Greek model, or they may have been deliberately sent abroad for a similar purpose. The striking of coins for several towns at a common centre is certainly the natural explanation of most instances of the joint use of dies, and it was in all probability more prevalent in Greece than has been recognized: the early “island” coins may have

been struck at Aegina, the first Athenian didrachms were almost certainly made in Euboea, and the Cyzicene staters with exotic types may be taken, as implied in the suggestion of Head, to be really produced on the order of the cities whose types appear on them. In all these cases the mint would be at the central market of the metal, and it would be an obvious advantage for a city which wanted a supply of coin to get it in the form which it had ultimately to take: the reason was the same as that which now operates to make the London mint strike coins for all quarters of the world. At a later period, particularly in Asia Minor in Imperial times, the reason for the existence of a central mint would be different: a few large cities, such as Smyrna, issued a constant stream of coins, but many small towns only appeared at intervals as the sponsors of a local coinage, and it would be most natural that when these towns wanted such a coinage they should send an order to a regular mint rather than establish one themselves for a temporary purpose.

The last explanation is the one which probably applies to the cases which M. Robert has considered; and it certainly does not imply that the town which ordered coins was near the mint to which it sent its order. If modern instances may be cited, it would not even be necessary that the mint was the nearest; Italy, in the last century, ordered coins from Birmingham, and there are several mints nearer to Guatemala than London. The topographical value of the argument from common use of dies seems to be small: moreover, the list given by M. Robert shows instances of joint user by towns about fifty miles apart, and it is not much help in locating a site to know that it is somewhere in a circle with a radius of fifty miles.

M. Robert has done such excellent work in his studies that it would be a pity for him to be led away on a false trail by a mistaken use of numismatic evidence.

J. G. M.

III.

TWO UNPUBLISHED GREEK COINS.

[SEE PLATE I.]

I. MARK ANTONY AND CLEOPATRA AT PTOLEMAIS-ACE.

Obv. Head of Mark Antony r., framed in laurel-wreath.

Rev. On r. downwards, ΠΕΡΑC ACYΛΟΥ; in the field, on l. in centre, ΠΤΟΛΕΜΑ; on r. below, ΙΕ; on l. below ΩΝ. Bust of Cleopatra r., hair in knot behind, wearing broad diadem, necklace with pendant, and robe fastened on left shoulder with a disk-like ornament. Border of dots.

Æ. ↑ 22.5 mm. 8.78 grm. (135.5 grs.). Kestner Museum, Hanover, from an old collection. [Pl. I. 1 and 1a (enlarged 2½ diam.).]

THE middle syllables of the city's name ΜΑΙΕ (set on a slight curve) are clear, the remainder (in the reading of which Professor Gaebler most kindly supports me) faintly legible. The attribution of the coin is however confirmed by the fact that the head of Antony is found within the same laurel border on other coins of Ptolemais, with the reverse standing Tyche, e.g. *B.M.C. Phoenicia*, p. 130, no. 14 (25 mm., wt. 10.85 grm.). There is a second specimen (25 mm., wt. unknown) from the same die as this London coin known from a cast in the Berlin cabinet (offered by Hamburger 1886) on which the reverse inscription is more distinct than that of the London one, and reads ΛΙΑΚΑΙΑΣΥ to l., ΠΤΟΛΕΜΑΕΩΝΙΕΑΣ to r., the P apparently having been

omitted at first and later inserted in the die. A third specimen (25 mm., 10.27 grm. [Pl. I. 2]) formerly in the Rouvier Collection¹ and now in that of Mr. E. T. Newell, to whom I am indebted for a cast and an exact description, shows slight differences in the designs of obverse and reverse, which in this case reads ΙΕΡΑΣ. The obverse of this last coin very closely resembles that of our piece, although it does not appear to be from the same die. It may also be pointed out that it is about 2.5 mm. smaller than the other three specimens (the dio being obviously too large for the flan) and also 1.5 to 2 grm. lighter, which shows that it was struck later than the coins with reverse Tyche and date ΛΑΙ (year 11 of the Caesarean era = 38-37 B.C.).

The hitherto unknown coin in Hanover provides us with a new example of the portraits of these two world-famous figures in conjunction. Portraits of Antony or Cleopatra alone are known on a large number of coins.² But pieces of this kind on which the conjunction of both portraits provides documentary evidence of the

¹ J. Rouvier, "Num. des Villes de Phénicie", *Journ. Intern.*, iv, 1901, p. 214, no. 993, Pl. A 10.

² To the bibliography, in addition to the well-known Catalogues by Cohen, Babelon, Grueber, and Bahrfeldt (*Römische Goldmünzenprägung*) may be added: J. J. Bernoulli, *Römische Ikonographie*, i (1882), Münztafel, iv, 80-91 (Antony, text pp. 203-11) and 93-6 (Cleopatra, text, pp. 212-17). L. Forrer, "Les Monnaies de Cléopâtre VII", *Rev. Belge*, 1900, pp. 5-28, 149-66, and 277-92, Pl. 1-11. J. N. Svoronos, *Νομ. τοῦ Κρατ. τῶν Πτολεμαίων*, Athens, 1904-1908 (Cleopatra VII and her Co-regents, ii, nos. 1847-1908, Pl. LXII and LXIII, text, iv, pp. 358-95). U. Kahrstedt, *Frauen auf antiken Münzen*, *Klio*, x (1910), pp. 276-8, 292. L. Curtius, *Ikonographische Beiträge zum Portrait der röm. Republik* (Cleopatra VII Philopator), *Mitt. d. deutsch. arch. Inst., Röm. Abt.* 48 (1933), pp. 182-92.

marriage of the two in 36 B.C.³ have so far only been known in three series of coins:⁴

A. *Tetradrachms of Antioch⁵ of 36 B.C.*

Obv. ANTΩNIOC AVTOKPATΩP TPITON TPION AN-
ΔPΩN⁶ Head of Antony r.

Rev. ΒΑΣΙΛΙCΚΑ ΚΛΕΟΠΑΤΡΑ ΘΕΑ ΝΕΩΤΕΡΑ Bust
of Cleopatra r. wearing diadem.

The year 33 B.C. as the lower limit of date is given by overstrikes of Parthian tetradrachms of this year (cf. Allotte de la Fûye, *Rev. Num.*, 1904, pp. 174-87; H. Dressel, *Z.f.N.*, xxxiii (1922), p. 166), while the upper limit is in all probability the year 36. This is also the conclusion reached after a thorough investigation by Allotte de la Fûye (*op. cit.*, p. 186), and he is followed by A. Dieudonné (*Rev. Num.*, 1927, p. 23).

³ Stähelin, in Pauly-Wissowa, *R.E.*, XI, i (1921), s.v. Kleopatra, p. 759. All the arguments in favour of the reality, often disputed, of the marriage in 36 are given in Weigall, *The Life and Times of Cleopatra* (new and revised edition, 1923, p. 213); cf. also Turn in *Cambr. Anc. Hist.*, x, pp. 55-6, 76, who gives a date of autumn 37 for the marriage.

⁴ All three collected as early as Mionnet VI (1813), p. 33, nos. 266-8, under "Rois d'Égypte. Cleopatra cum Marco Antonio", since which time no additions have been made.

⁵ Wroth, *B.M.C. Galatia, etc.* (1899), p. 158, nos. 53-6, Pl. XIX. 3. L. Forrer, *op. cit.*, pp. 277-9. Svoronos, *op. cit.*, ii, p. 316, no. 1897 (41 specimens), and 1898, Pl. LXIII. 22, 23, 24; iv, pp. 389-91, also Regling in Svoronos, iv, p. 510. Kahrstedt, *op. cit.*, p. 276, under no. 3, pp. 277-8. L. Lafranchi, "Monetazione di Augusto", *Riv. Ital.*, 1917, p. 254, Pl. III. 37-8. v. Sallet-Regling, *Die antiken Münzen*², (1929), p. 61. A. Dieudonné, "Les Monnaies grecques de Syrie", *Rev. Num.*, 1927, p. 22, Pl. I. 21. Curtius, *op. cit.*, p. 182. Hill, *Guide to the Principal Coins of the Greeks*, 1932, p. 81, no. 16.

⁶ Among the five specimens in Berlin from different obverse and reverse dies there is one (Löbbecke, 14.73 grm.) with TPION AΔPΩN (*sic*).

A bronze coin of Damascus in the Hunter Collection⁷ dated 36 B.C. shows the same traces of advancing age in the features of Cleopatra, now 33 years old, as do the tetradrachms.

Like the date, the mint of these coins has also been much disputed, and quite recently Paul Graindor⁸ has again put forward the claims of Alexandria. But there are no numismatic reasons in favour of this, while support for the generally accepted view that they were minted in Syria (and presumably in the capital) may be found in a characteristic feature, hitherto not properly appreciated even by Svoronos—the symbol of the horse's head on a unique tetradrachm in Athens⁹ [Pl. I. 3]. This is an old Seleucid armorial badge, well known as a type and symbol on many coins of the kings of Syria from Selencus I onwards (cf. Imhoof-Blumer, *Num. Zeitschr.*, xlv, 1913, p. 176). It is found on one coin beside the head of Demetrius I (*Z.f.N.*, xxxv (1925), p. 227, no. 4, Pl. IX. 12) in the same way as beside the head of Antony, and so indicates a Syrian origin. Dieudonné (*op. cit.*, p. 23, note 2) wrongly describes this horse's head as a symbol of Selencia, but it never appears on the coins of this city, the type of which is a thunderbolt. The horse's head is also of frequent occurrence on Parthian coins. Here perhaps it should again be traced back to a Seleucid origin (cf. Wroth in *B.M.C.*

⁷ Macdonald, *Catalogue*, iii (1905), p. 218, no. 1, Pl. LXXV. 1; Svoronos, *ibid.*, 1890, Pl. LXIII. 16. I am indebted to Sir George Macdonald and Miss Anne S. Robertson for a cast.

⁸ *Bustes et statues-portraits d'Égypte romaine* (Université Égyptienne, Rec. de Trav. Publ. par la Faculté des Lettres, Cairo, 1937, p. 40).

⁹ Svoronos, 1898 text, iv, p. 390 (I owe the casts to the kindness of Dr. W. Schwabacher of Athens).

Parthia, p. lxxii), but it must not on this account be brought into connexion with Antony's unfortunate Parthian campaign, nor with his success against Armenia, which is reflected in the symbol of the Armenian royal tiara on the next group of the ARMENIA DEVICTA denarii (*B.M.C. Republic*, Pl. CXV. 15, 16; Babelon, *Antonia*, no. 93) as well as on the denarins of the year 34 with reverse tiara, bow and arrow (*B.M.C. ibid.*, Pl. CXV. 10; Babelon, no. 94).

The attribution of the tetradrachms to Antioch is further supported by the very marked agreement¹⁰ in style of the head of Antony with that on the drachms which are certainly of this city (reverse head of Tyche, *B.M.C. Galatia, etc.*, p. 157, no. 52) [Pl. I. 4]. Antony held court in the winter of 37-36 with Cleopatra at Antioch, in feasting and riotous living.

In the old Seleucid royal city the ruler of the East may have felt himself the successor of the Seleucid sovereigns. If, moreover, the dating of the tetradrachms to the year 36 is correct, the deification of Cleopatra on these coins as *θεὰ νεωτέρα* should be traced to Syrian rather than to Egyptian usage, for Cleopatra was not proclaimed as *νέα Ἴσις* in Alexandria until Antony's triumph in the year 34 (Plutarch, *Antonius*, 54). On the other hand, a Syrian precedent may have been followed, that of the queen Cleopatra Thea, daughter of Ptolemy VI and wife of three kings of Syria, who calls herself *Θεά* on the coins of her last years when she acted as regent for her young son Antiochus VIII Grypos, 125-121 B.C.¹¹

¹⁰ Forrer, *op. cit.*, p. 279, has also called attention to this.

¹¹ E. Babelon, *Rois de Syrie*, p. clii, fig. 37, nos. 1351, 1359, 1362-6: he already calls attention to the similarity of the epithets

Newell, to whom we owe the careful investigation of the coinage of pre-Imperial Antioch,¹² considers the origin of these tetradrachms in that mint as possible,¹³ and I think that the historical circumstances and numismatic indications alike show that they cannot well have been issued elsewhere than from the Syrian capital. Svoronos (*ibid.*, iv, p. 389) has established that they are frequently found in Syria. On these tetradrachms Antony¹⁴ appears with his full titles as a Roman magistrate with the right of official coinage, a feature only found elsewhere on the bronze coinage of his third consulship in 31 B.C.,¹⁵ which bears no portrait but only the legends, *Obv.* ANTΩ|YΠA|Γ; *Rev.* BAC|A|ΘEA|NE. On the remaining coins, including our piece of Ptolemais, he is without official titles and is simply prince consort.¹⁶

of the two Cleopatras. On the coins of the Ptolemies the title Theos, though repeatedly found in Ptolemaic inscriptions and papyri, is only once found for the living king, in the case of Ptolemy VI Philometor, the father of Cleopatra Thea (*B.M.C. Ptolemies*, p. lxvi; Svoronos, *ibid.*, no. 1486); and, what is more, on his Syrian issues "in the character of a Seleucid king" (Poole).

¹² *Num. Chron.*, 1919, pp. 69 ff.

¹³ *Ibid.*, p. 79, note 7.

¹⁴ He was the first Roman ruler to put the head of a woman on a coin (before Cleopatra those of Fulvia and Octavia), and stands quite alone in his period in this respect, (Kahrstedt, pp. 291-2). This is probably an argument in favour of his marriage to Cleopatra (cf. above p. 67, note 3), for her portrait would then appear on his coins like those of his two previous wives.

¹⁵ Mint of Cyrene according to Svoronos, but more probably uncertain, cf. Regling in Svoronos, *ibid.*, p. 510; not incorporated by E. S. G. Robinson in *B.M.C. Cyrenaica*: placed under Antioch in Berlin.

¹⁶ Apart from the two exceptions just mentioned, the head of Antony on coins of Greek cities is always without name and titles, o.g. at Philippi; Gaebler, *Die antiken Münzen Nordgriechenlands*,

B. *Denarii*¹⁷ of the Roman Imperial Standard.

Obv. ANTONI ARMENIA DEVICTA: Head of M. Antony r.; behind, Armenian royal tiara.

Rev. CLEOPATRAE REGINAE REGVM FILIORVM REGVM Bust of Cleopatra r. with diadem; below, prow of ship. Struck in the East (Antioch?) undated, but generally assumed to be of 34 B.C.

C. *Bronze coins of Berytus*¹⁸ with year 21 of Cleopatra and year 6 (the latter either of Caesarion or of

iii, 2, p. 102, nos. 10-11; Corinth, *B.M.C.*, no. 490; Zacynthus, *B.M.C.*, nos. 84-7; Cnossos, *B.M.C.*, nos. 72-3; Soli-Pompeipolis, *B.M.C.*, nos. 53-4; Antioch, *B.M.C.*, no. 52 (drachm); Balaneia, Mionnet, v, p. 226, no. 588, *Suppl.* VIII, p. 156, no. 156; Aradus, *B.M.C.*, no. 355; Berytus, *B.M.C.*, no. 15; Ptolemais, *B.M.C.*, no. 14; Tripolis, *B.M.C.*, no. 20 and p. cxvii, no. 3.

¹⁷ Eckhel *Doctrina Numorum*, vi (1828), p. 47, year 34. Cohen², i (1880, p. 57, no. 1, "frappée en Asie", 35 ou 34). E. Babelon, *Monn. de la Republ. Rom.*, i (1885), p. 195, no. 95, year 34. M. v. Bahrfeldt, *Nachträge* (1897), p. 40, no. 37, Pl. II. 35, and *Die Münzen der Flottenpräfekten d. M. Antonius* (1905), p. 25. Svoronos, *op. cit.*, p. 318, nos. 1906-8, Pl. LXIII. 31, cp. iv, p. 395, "geschlagen zur Verherrlichung der im Winter 35-4 erfolgten Unterwerfung Armeniens". Hill, *Historical Roman Coins* (1909), p. 132, no. 82, "doubtless issued after the return of M. Antonius to Alexandria with Artavasdes in his train". Kahrstedt, *op. cit.*, p. 276, under no. 3. Grueber, *B.M.C. Rom. Rep.*, ii (1910), p. 525, nos. 179-82, iii, Pl. CXV. 15, 16, and *Num. Chron.*, 1911, p. 150, probably struck in Athens c. 32-31. Laffranchi, *Riv. Ital.* (1917), pp. 248 and 253, Pl. III. 27, 28, 29 (Antioch 34). Sallet-Regling, *Die antiken Münzen*³ (1929), p. 95. M. v. Bahrfeldt, *Römische Goldmünzenprägung* (1923), p. 87, Autumn 34. Mattingly, *Roman Coins* (1928), p. 231, Pl. XX. 16, c. 32. Curtius, *op. cit.*, p. 183. Tarn, *C.A.H.*, x, p. 80, Pl. II. 189 f.

¹⁸ Strack, *Dynastie der Ptolemäer*, 1897, p. 211, note 47. Rouvier, *Journ. Int.*, iii (1900), p. 266, no. 440, Pl. XII. 8. L. Forrer, *op. cit.*, pp. 279-80, nos. 40-3 (Aradus?). Svoronos, *op. cit.*, ii, no. 1887, Pl. LXIII. 18, 19; iv, pp. 385-7; also Regling in Svoronos, iv, p. 510. Hill, *B.M.C. Phoenicia* (1910), p. li and p. 54, no. 15, Pl. VII. 10. Stähelin, *R.E.*, xi, 1, p. 761.

Antony, or possibly double date of Cleopatra alone)
= 31 B.C.¹⁹

Obv. ΒΑΣΙΛΙΚΗ ΚΛΕΟΠΑΤΡΑΣ Bust of Cleopatra r.
with diadem.

Rev. ΕΤΟΥΣ ΚΑ ΤΟΥ ΚΑΙΣ ΘΕΑΣ Ν(ΕΩΤΕΡΑΣ) Head
of Mark Antony r.

[A coin of the Phoenician Tripolis in Berlin (Löbbecke Collection, *B.M.C. Phoenicia*, p. cxviii, no. 3, Pl. XLIII. 10) with head of Mark Antony and reverse, a female head in which some scholars have wished to see Cleopatra (most recently Svoronos, ii, p. 316, no. 1896, with a query, and, in agreement, Regling in Svoronos, iv, p. 510, and, following him, Kahrstedt, p. 16, under no. 2), but which after Hill's illuminating explanation (*B.M.C. ibid.*, p. cxviii) can only be interpreted as that of Fulvia, is therefore not included here—nor, of course, the coin of Tripolis (*B.M.C.*, p. 204, no. 20) with the name of Cleopatra added in modern times.]

Returning now to the coin of Ptolemais and its chronology, a date before 36 B.C., the year of the marriage, is impossible. A joint appearance of Antony and Cleopatra on coins could not conceivably be earlier. In view of the almost complete identity of the head of Antony with that on the coin of 38–37 [Pl. I. 2] whose obverse die was used for an issue obviously betraying by its reduced size and weight a scarcity of metal, the coin can only have been struck shortly after this date. On the other hand, the type of Cleopatra's portrait is closely connected with the elder type of the Antioch

¹⁹ Opinions differ on this point. For the era of Antony see Tarn, *C.A.H.*, x, p. 81, and now Mrs. Baldwin Brett (see Postscript), *Am. Journ. Arch.*, xli (1937), p. 461.

tetradrachms of the year 36; and, since after 34 we might expect an allusion to the Armenian victory, as on the denarii of group B, the only possible period is that between 36-34 B.C. Among the lands presented as dowry to Cleopatra by Antony were the Phoenician cities between the river Eleutherus and Egypt,²⁰ with the exception of Tyre and Sidon,²¹ thus including Ptolemais. The use of the old die for the too small flan betrays haste in the striking. It may be assumed that the city, which had put the head of a Roman ruler on its coins²² as early as 38-37, now made all haste to adapt itself to the altered political situation, and, following the example of the Syrian capital, added the portraits of the new consort and sovereign. On this argument the coins should be put to the year 36 rather than later.

The dies are careful pieces of characterization and enrich the iconography of these two famous figures, for the portraits differ in details from those hitherto known. The head of the Roman has an expression of sombre energy not found elsewhere, while the Syrian tetradrachms of the period of debauchery with Cleopatra show almost a happy, pleasing smile.²³ The heavy swollen lips and the prominent chin reveal

²⁰ The modern Nahr al-Kebir, which flows into the sea about six hours' journey north of Tripoli, and according to Strabo formed the frontier between Seleucia on the one hand and Phoenicia and Coelo-Syria on the other; Benzinger, *R.E.*, v, 2 (1905), col. 2354.

²¹ Josephus, *Ant. Jud.*, 4, 1; Plutarch, *Anton.*, 36. J. Raillard, *Die Anordnungen des M. Antonius im Orient* (Diss. Zurich, 1894), *passim*. Stähelin, *R.E.*, xi, col. 760.

²² G. F. Hill, *B.M.C. Phoenicia*, p. lxxxi, "doubtless struck when Antonius was in the east at the time of his undertaking against Antiochus of Commagene".

²³ Stähelin, *R.E.*, xi, 1, col. 759.

strong sensuality, which, like the broad forehead and hawk nose, are in keeping with Plutarch's description (*Anton.*, 4).

The Egyptian queen whose charms are recounted by Plutarch (*ibid.*, 25, 27, 57, 83), though only a few, more finely executed, coins from Egypt and Ascalon with her likeness in yonth give us an idea of them, here appears some degrees more attractive and more feminine than on the coins of the above three groups and other issues which show an ageing portrait.

For our knowledge of the physiognomy of these two celebrated characters who have attracted the interest of all ages, we are almost entirely dependent on coins.²⁴ Only a single marble head in the Vatican on the Peplos-figure of the *Sala in forma di croce greca* (no. 567) to which it does not belong, has so far been identified with certainty as that of the young Cleopatra. The credit of discovering it is due to L. Curtius²⁵ who identified it with the help of a careful study of the coins. Of Antony, whose statues were destroyed²⁶ by order of the Senate after the battle of Actium, no sculptured portrait has so far been recognized with certainty.

POSTSCRIPT.—After this study had been completed Mrs. Agnes Baldwin Brett's interesting article 'A New Cleopatra Tetradrachm of Ascalon' in the *American Journal of Archaeology*, xli, no. 3 (July-September),

²⁴ Grainger, *op. cit.*, 40.

²⁵ *Op. cit.*, pp. 182-92. On the other hand, his attribution (*op. cit.*, p. 188) of the carnelian gem in the Hermitage, Leningrad, (Furtwängler, *Antike Gemmen*, i, Pl. 32, 37; ii, p. 160) to Cleopatra does not convince me. The features do not agree closely enough with the coin portraits.

²⁶ Plutarch, *Anton.*, 87, *ibid.*; *Cic.* 49; Dio, li, 19.

1937, reached me, which satisfactorily solves the hitherto unexplained problem of the era of the Ptolemaic tetradrachms of Ascalon and at the same time goes in some detail into the question of the portrait of Cleopatra on these coins.

Some have wished to see in the pronounced hooked nose of the queen on the tetradrachm and denarii with the portrait of Antony an assimilation by the engraver to the physiognomy of the triumvir (Bernoulli, *op. cit.*, p. 214, and Curtius, *op. cit.*, p. 183) and the same might also have been said of our coin of Ptolemais. Mrs. Baldwin Brett, however, shows, by comparing a drachm of Cleopatra's father, Ptolemy XIII Auletes, in the Newell Collection, with the well-known and beautiful drachm of the daughter in the British Museum, that the nose is hereditary.

The authoress finds that Curtius's identification of the marble bust in the Vatican 'has much in its favour' and it seems to me also that the objections raised have not affected his attribution.

II. A NEW COIN OF ALEXANDRIA.

Obv. AVT.K.AC --- Head of Sept. Severus r., laureate; dotted border.

Rev. Representation of a "theoxenion" (*lectisternium*). From right to left on a couch covered with cushions *Sarapis* reclining to l., holding a wreath in his outstretched r. hand; *Harpocrates* facing, reclining to l., his head turned towards *Sarapis*; *Isis* with cornucopias and sceptre; *Demeter* holding torch in r. hand, with l. outstretched; *Hermanubis*. Below the couch three niches; in the central one, *Tyche* reclining to l. on a couch.

Æ. diobol. ↑ 25 mm. 7.59 gm. (117 grs.). E. T. Newell Collection, New York. [Pl. I. 5.]

After my publication of the unique Berlin bronze drachm of Marcus Aurelius with the hitherto unknown representation of a theoxenion (*Deutsche Münzblätter*, 1936, no. 408) [Pl. I. 6], Mr. E. T. Newell, with a kindness which I cannot sufficiently appreciate, informed me of this coin of Septimius, also unique, in his collection, and gave me permission to publish it. The coin is not so well preserved as that of Marcus Aurelius, which shows clearly almost all the details of this extraordinary reverse type, and most unfortunately no date can be read on it. Careful cleaning of the piece by electrolysis has brought none to light, though probably there was one in the exergue. Nevertheless, everything essential can be recognized on the coin so that the almost exact repetition of the theoxenion from the coin of Marcus is clear. There are the five deities on the couch: Sarapis, Harpocrates as a child, Isis, Demeter (her torch with the guard particularly clear), Hermannubis, all reproduced in the same attitudes and dress. Of the three niches below the couch the broad central one with reclining Tyche is still quite recognizable though the two at the sides are barely visible. The five 'vessels' above the heads of the deities which we must assume to be intended for their food are clearly completely lacking. This omission might be explained by the smaller size of the coin.

The type is even more striking in the Alexandrian coinage of Severus than in that of Marcus, for Severus makes but sparing use of the older stock of types of native deities, and chooses more and more members of the royal house.²⁷

²⁷ The Alexandrian types of Severus are collected and discussed in J. Hasebroek, *Untersuchungen zur Geschichte des Kaisers Septimius*

Obviously we have here a 'restitution' of the type of Marcns. Historical circumstances, the passage in the *Vita Marci*, and the Alexandrian terracottas with the same types made it unusually easy to explain the latter. For the coin of Severus, as the date is lacking and the obverse legend incomplete, we can only conjecture what reasons may have led to the resumption of this very striking type. A general explanation might be found in the veneration of Severus for Marcus, which led to his fictitious adoption by the Divus Marcus in 193;²⁸ and the Emperor's stay in Egypt²⁹ in the years 199-200 and 200-201, where he might still see his predecessor's theoxenion coins and terracottas, might well have been the occasion for new ritual feasts for the deities of the country. Perhaps a thank-offering was made to them for the successful termination of the war in the East, and this found reflection on the coin. The Roman coinage of this year has as its subject the restoration of peace and prosperity to the world by the house of Severus.³⁰ In view of this it is only natural to assume that the terracottas published in my earlier essay, which I had given to the time of Marcus, considering their differences of fabric and style, continued to be manufactured down to the time of Severus.

The Museum Antiker Kleinkunst in Mnnich possesses a further example of these clay money-boxes with representations of the lectisternium (theoxenion), to

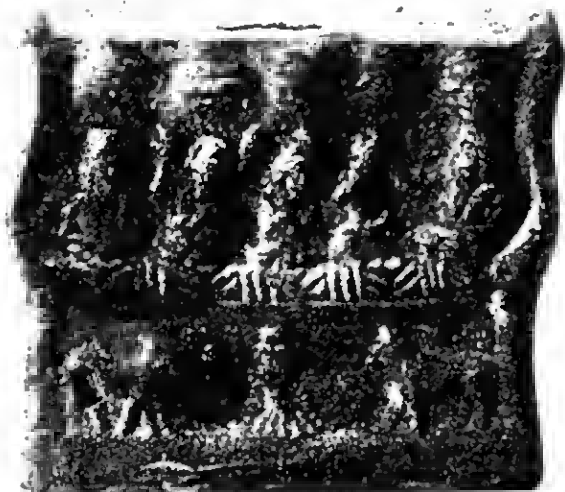
Severus, Heidelberg, 1921, pp. 166-72. J. Vogt, *Die alexandrinischen Münzen*, Stuttgart, 1924, pp. 160-8. J. G. Milne, *Catalogue of Alexandrian Coins*, 1933, Oxford, pp. lxi and 66.

²⁸ Hasebroek, p. 88 f., with all references.

²⁹ *Ibid.*, p. 118 f.; Vogt, p. 165 f.

³⁰ Mattingly and Sydenham, *Roman Imperial Coinage*, iv, i, 1936, p. 69; cf. also Vogt, p. 167.

which Prof. R. Zahn has most kindly drawn my attention. I am also indebted to the Director, Prof. H. Diepolder of Munich for a photograph of the piece (Inv. no. 5614) and for the following note: "The piece was purchased from a Munich dealer, and the provenance



was given as Egypt, which, to judge by the clay, seems to me quite trustworthy. Unfortunately the relief is far from sharp, so that it was impossible to get a better picture. On the bench are represented: Sarapis, who is crowning Harpocrates; Harpocrates, as a child, squatting (like your Pl. 167. 1)³¹; Isis (the cornucopiae very indistinct); Demeter with torch; Hermanubis with caduceus. The animals beneath appear to me to be a Hathor-cow on left, and an Apis-bull on right, with a thymiaterion between them. The back is

³¹ i.e. *Deutsche Münzblätter* (1936).

smooth. Above is a well-preserved slit for the insertion of the money."

The measurements are: height 10.5 cm., breadth 11.9 cm.; the same, therefore, as those of the piece illustrated on Pl. 167, no. 1, to which it bears also a greater likeness in other respects than to the savings-box on Pl. 166, no. 1,³² which corresponds rather with the coin of Marcus. The vessels, however, are represented in the same way as on the last-named piece. A new feature appears in the objects in relief under the line beneath the bench: a thymiaterion or altar flanked by what appears to be an Apis-bull with solar disk between the horns on l.,³³ and on the r. a Hathor-cow (or a ram? or a second Apis-bull?) walking to l. Here we have, then, the sacred animals of the Egyptians associated with the banquet of the gods. The execution of this ill-composed piece of journeyman's work is superficial in the extreme, but it is noteworthy for the historical interest which links it and its companion-pieces to the coins.

PH. LEDERER.

³² i.e. *ibid.*

³³ Similar to the coins *B.M.C. Alexandria*, Pl. XXV, 812 (Hadrian) and 1175 (Antoninus Pius) and to the terracottas, Weber, *Terrakotten*, Berlin, 1914, Pl. 37, 414.

IV.

A HOARD OF DECADRACHMS OF THE DERRONES FROM VELITCHKOVO (BULGARIA).

[SEE PLATES II AND III.]

ON the 24th of September 1937 a workman while digging in the locality of "Issovi kamâni" near the village Velitchkovo, where there is a good quarry for pavement blocks, dug out an earthen pot with nine decadrachms bearing the name of the Thraco-Macedonian tribe Derrones.¹ The quarry is on the eastern slope of the hill "Strandja" at the foot of which is situated the village Velitchkovo (Tsgerli). The village is at a distance of 12 km. north-west of the town Pasardjik, in southern Bulgaria, and 2 km. from the highway Sofia-Plovdiv (Philippopolis).

According to the story of the workman and his friends the pot with the coins was placed near a rock and was covered with a round thick terracotta tile (see fig. 1). From the fragments of the pot, which was broken after it was dug out, it can be seen that

¹ Another not less valuable hoard from a later epoch was found near Velitchkovo 35 years ago. In 1903 on the hill top 'Gradishteto', 2 km. from the village, villagers dug out 25 kgs. of gold Byzantine coins together with ten pieces of silver-ware. From this hoard nothing could be saved for the collections of the National Museum, but two silver-gilt plates from it belong now to the collection of Schlumberger; see Tacchella, *Rev. Num.*, 1903, p. 380; Migeon in *Syria*, iii, 1922, p. 171.

it had the form of a cup, 12.5 cm. high; the diameter of its base measures 8 cm., and the width of its mouth is 10.5 cm. The sides of the pot are smooth on the outside, with no decoration whatsoever; the coins were found lying in the bottom of the cup, covered with a thick layer of black earth.

Immediately after finding the coins the workmen hid them away. Fortunately they were discovered in time and obtained for the collections of the numismatic cabinet at the National Museum in Sofia, except one specimen which now belongs to the local museum in Pasardjik.²

All the nine decadrachms are very well preserved, which shows that they had been in circulation only for a short time.

The representations on the coins are identical with those on the decadrachms of the Derrones already known.³ On the reverse there is a triskeles, which is made up of three human legs ending in horse-hooves, i.e. the legs of a Silenus. This is very well seen on the specimens nos. 4, 5, and 9 [see Pl. II and III].

In our hoard there are specimens with two different kinds of symbols. On nos. 1, 2, 3, 4, and 5 in the space over the ox is an eagle flying towards the right and holding in its beak a lizard by the tail.⁴ On the

² Thanks to Mr. Hristovitch, Custos at the local museum in Pasardjik, who immediately informed the Direction of the National Museum in Sofia of the finding of the hoard, it was possible to obtain the coins for the numismatic cabinet in Sofia.

³ See Gaebler, *Die antiken Münzen von Makedonia und Paionia* 1935, pp. 55-6.

⁴ On the specimen published by Gaebler (*op. cit.*, p. 56, no. 3) the representation is not clear, and that is why the reptile has been taken for a turtle.

remaining four coins in the corresponding place there is a circle of dots with an eight-pointed star in the middle.

On these coins the name of the Derrones is given in two different ways; on one specimen the whole name is engraved, and on others it is given in an abbreviated form. Thus, on the coins which have the symbol of a flying eagle, the whole name is written; on the remaining coins it is abbreviated thus MOPPETHA .

Comparison of the nine decadrachms in the hoard shows that several specimens come from the same dies. Thus the obverses of the specimens nos. 2, 3, 4, and 5 are struck from the same die. The representations on these four coins are identical, for example, the position of the extremities, the size of the figures, the wicker-side of the two-wheeled vehicle; also a roughness which appears in the space above the ox is identical on all the coins and is due to a defect in the die. Two different dies, however, were used for the reverse of these four coins: nos. 2 and 3 are from the same reverse die and on them the triskeles revolves towards the left. The reverse of nos. 4 and 5 are from another die—the triskeles on them revolves towards the right. The coins nos. 6, 7, 8, and 9 are also from identical dies. Specimen no. 1 is from a third die; the appearance and the style of this coin differ from those of the remaining coins of the hoard. On this coin the body of the ox is longer, the eagle is smaller, while the half-palmette in the space below the ox is missing. The much worn surface of this coin shows that it had been in circulation for a long time. This indicates that it is older

than the remaining eight decadrachms, and should be placed at the top of the list.

The average weight of the nine coins is between 39 and 40.50 grm. (600-625 grains); the heaviest specimen is no. 9, it weighs 40.65 grm. (627.5 grains); and the lightest is no. 7, only 38.90 grm. (601 grains).

A description of the coins follows:

1. *Obv.* ΝΟΧΙΝΟΡΡΕΔ in a curve above. A bearded man, wearing a short-sleeved chiton, is seated in a two-wheeled car drawn by two oxen (of which only one is seen); in his right hand he holds a whip; in the space above, an eagle flying towards the right; the eagle holds in its beak a lizard by the tail; triple ground-line.

Rev. In the middle of an incuse square a triskeles revolving towards the left.

Size 38/32 mm.; wt. 40.31 grm. (622 grains)
[Pl. II. 1.]

The reverse of the coin was blackened with smoke by the finder of the hoard.

2. *Obv.* ΝΟΧΙΝΟΡΡΕΔ; Similar to no. 1; under the ox there is a half-palmette.

Rev. Similar to no. 1.

Size 36/37 mm.; wt. 40.35 grm. (622.5 grains)
[Pl. II. 2.]

Of the same type is the specimen published by Gaebler, *Die ant. Münzen von Makedonia und Paionia*, p. 56, 3; Pl. I. 11.

3. *Obv.* The inscription cannot be seen. Similar to no. 2.

Rev. Similar to no. 2.

Size 35/35 mm.; wt. 40.50 grm. (625 grains)
[Pl. II. 3.]

4. *Obv.* ΝΟΧ . . ΟΡΡΕΔ. Similar to no. 3.

Rev. In the middle of an incuse square a triskeles towards the right.

Size 35/35 mm.; wt. 40.50 grm. (625 grains)
[Pl. II. 4.]

5. *Obv.* ΝΟΧΙ . . . Similar to no. 4.

Rev. Similar to no. 4.

Size 35/35 mm.; wt. 39.40 gm. (608 grains) (Pasar-djik Museum). [Pl. II. 5.]

6. *Obv.* ΙΝΟΡΡΕΔ. Similar to no. 5.; in the space above there is a circle of dots with an eight-pointed star in the middle; below there is a half-palmette: border of dots.

Rev. In the middle of an incuse square a triskeles revolving towards the right.

Size 36/33 mm.; wt. 39.95 gm. (609 grains) [Pl. III. 6.]

7. *Obv.* ΙΝΟΡΡΕΔ. Similar to no. 6.

Rev. Similar to no. 6.

Size 35/32 mm.; wt. 38.90 gm. (601 grains) [Pl. III. 7.]

8. *Obv.* ΙΝΟΡ . . . Similar to 7. Border of dots.

Rev. Similar to no. 7.

Size 35/31 mm.; wt. 40.30 gm. (622 grains) [Pl. III. 8.]

The upper right side of the coin has been injured with a blunt tool at an early date.

9. *Obv.* The inscription cannot be seen. Similar to no. 8.

Rev. Similar to no. 8.

Size 34/33 mm.; wt. 40.65 gm. (627.5 grains) [Pl. III. 9.]

Of the same type as the specimen described by Gaebler, *op. cit.*, p. 56, 4; Pl. XXV. 15.

THEODOR GERASSIMOV.

V.

THE BRISTOL HOARD OF DENARII, 1937.

On July 28, 1937, a hoard of 1,478 silver and 2 copper coins was found in Rochester Road, St. Anne's, Bristol, in a pit that was being dug for a garage. No trace of any container could be found, though careful search was made. There is every reason for thinking that the whole of the original hoard was recovered. The coroner held his inquest in due course and adjudged the coins to be Treasure Trove. An interesting point arose in this connexion, as the City of Bristol possesses an ancient, but still valid, grant of Treasure Trove, and the question had to be answered whether this hoard fell within the grant or not. It was found, however, that the find-spot was a short distance outside anything that might be claimed as the boundary of the city, within the meaning of the grant, and the coins were therefore forwarded, in the regular way, to the British Museum. There they were cleaned and classified. Ninety-five coins were selected for purchase by the Museum, and Bristol is acquiring the residue of the hoard.

The distribution of the coins is shown in the two columns below, the left-hand column showing the rulers whose heads appear on the coins, the right-hand the reigns in which the coins were struck. The third list gives the figures of the closely similar hoard from Muswell Hill (*Num. Chron.*, 1929, pp. 313 ff.):—

	<i>I.</i>	<i>II.</i>
MARK ANTONY	60	60
NERO	10	10
GALEA	5	5
OTHO	1	1
VITELLIUS	7	7
VESPASIAN	162	181
TITUS	27	25
DOMITIAN	26 (and 1 Greek drachm)	9 (and 1 Greek drachm)
NERVA	9	9
TRAJAN	102 (and 1 Greek drachm)	102 (and 1 Greek drachm)
HADRIAN	128 (and 1 Roman As)	145 (and 1 Roman As)
SABINA	10	—
L. AELIUS CAESAR	5	—
ANTONINUS PIUS	134	245
FAUSTINA I	66	—
MARCUS AURELIUS	96 (and 1 Roman dupondius)	135 (and 1 Roman dupondius)
FAUSTINA II	57	—
L. VERUS	19	—
LUCILLA	9	—
COMMODUS	57	60
CRISPINA	4	—
PERTINAX	3	2
ALBINUS	1	—
SEPTIMIUS SEVERUS	180	480
JULIA DOMNA	83	—
CARACALLA	105	—
PLAUTILLA	30	—
GETA	80	—
	1476 (+ 4)	1476 (+ 4)

III.

(Muswell Hill Hoard.)

MARK ANTONY	10	TITUS	9
NERO	2	DOMITIAN	31
GALEA	1	NERVA	4
OTHO	2	TRAJAN (incl. 1 Greek drachm)	50
VITELLIUS	1	HADRIAN	22
VESPASIAN	34		

SABINA	4	CRISPINA	3
L. AELIUS CAESAR	—	PERTINAX	—
ANTONINUS PIUS	39	ALBINUS	5
FAUSTINA I	21	SEPTIMIUS SEVERUS	151
MARCUS AURELIUS	31	JULIA DOMNA	68
FAUSTINA II	14	CARACALLA	63
L. VERUS	7	PLAUTILLA	25
LUCILLA	5	GETA	31
COMMODUS	21		654

All these coins were denarii. With them were two Greek drachms, one of Domitian (Caesarea Cappadociae), one of Trajan (Lycia), and two Aes coins of Rome, one of Hadrian (an As) and one of Marcus Aurelius (a Dupondius).

The distribution of the coins in detail was as follows :

MARK ANTONY. 60.

All legionary. C.¹ 29, 34 (3), 35, 41, 43, 47 (2), 57 (3), and 48 of uncertain legions. Many of these coins bore small punch-marks, probably intended to test the silver. Apart from a number of small marks of less determinate form the following were noted: ABCDE ILRTVX CL Rc 3. Much worn—Obliterated.

NERO. 10.

M. & S.² i, p. 148, no. 45 (C. 119-5), no. 50 (C. 258), no. 52 (C. 314-2); p. 149, no. 60 (C. 366-2). Much worn.

GALBA. 5.

M. & S. i, p. 199, no. 2, *obv.* 4; p. 201, no. 20 (add *obv.* 2-3), no. 24, *obv.* 4 (C. 325). Worn—Much worn.

OTHO. 1.

M. & S. i, p. 219, no. 12, *obv.* 3 (C. 15). Much worn.

¹ References are to H. Cohen, *Description historique des Monnaies frappées sous l'Empire romaine, etc.* (2nd edition), vol. i, 1880 ff.

² References are to H. Mattingly and E. A. Sydenham, *Roman Imperial Coinage*, vols. i-iv (1923-1936).

VITELLIUS. 7.

M. & S. i, p. 225, no. 20 (C. 72-2), no. 24, *obv.* 2 (C. 112-2), no. 24, *obv.* 3 (C. 111-3). Worn—Much worn.

VESPASIAN. 162.

(Own reign, 158.)

M. & S. ii, p. 15, no. 4 (C. 84), no. 5 (2); p. 16, no. 7 (C. 88-3), no. 9, no. 10 (25), no. 15 (C. 226-9); p. 18, no. 30 (C. 43-8); p. 19, no. 36 (C. 358-2), no. 37 (C. 561), no. 38 (C. 564), no. 39 (C. 366), no. 42 (C. 45-8); p. 20, no. 43 (C. 74-3), no. 49 (C. 563-5), no. 50 (C. 594-6), no. 52 (4); p. 21, no. 65 (C. 387-14); p. 22, no. 66, *obv.* 2 (C. 516), no. 67, *obv.* 1 (C. 431-3), no. 71 (C. 106), no. 73; p. 28, no. 75 (C. 362-9), no. 77 (C. 364-4); p. 24, no. 84 (C. 390), no. 90 (C. 366-15), no. 91 (C. 367); p. 25, no. 99 (C. 120-2), no. 100 (C. 372); p. 26, no. 103 (C. 125-3); p. 27, no. 109 (head r. C. 213-3, head l. C. 214), no. 110 (head r. C. 216-2, head l. C. 215-3), no. 113 (C. 550-2); p. 28, no. 124 (C. 222-7); p. 29, no. 131 (C. 28-2), no. 132 (C. 54-2). Worn—Obliterated.

(Struck under Titus, 4.)

M. & S. ii, p. 123, no. 63 (C. 497-4). Worn—Obliterated.

TITUS. 27.

(Struck under Vespasian, 12.)

M. & S. ii, p. 33, no. 155 (C. 121); p. 35, no. 173 (C. 159); p. 37, no. 195 (C. 65); p. 39, no. 211 (C. 106-2), no. 218 (C. 17-3), no. 219 (cp. C. 81—read AVGVST on *rev.*—4). Worn—Obliterated.

(Own reign, 15.)

M. & S. ii, p. 117, no. 6 (C. 276), no. 9 (C. 268-2); p. 118, no. 19 (C. 294), no. 19 (*obv.* C. 294—*rev.* COS VIII for COS VII PP), no. 23 (C. 316-4), no. 24 (C. 313), no. 25a (C. 318), no. 26 (C. 309), no. 27 (C. 321-2); p. 120, no. 31 (C. 25). Moderate—Much worn.

DOMITIAN. 26, and one Greek drachm.

(Struck under Vespasian, 11.)

M. & S. ii, p. 41, no. 232, DOMIT (C. 664), no. 233 (C. 375); p. 42, no. 238 (C. 47); p. 43, no. 241 (C. 51-2), no. 242 (C. 49), no. 243 (C. 384), no. 244 (C. 378-2), no. 248 (C. 30-2). Worn—Obliterated.

(Struck under Titus, 6.)

M. & S. ii, p. 121, no. 45 (C. 395); p. 122, no. 49 (C. 390), no. 50 (2), no. 51 (2). Moderate—Much worn.

(Own reign, 9.)

M. & S. ii, p. 155, no. 122 var. (*obv.* C. 55—*rev.* COS VII DES VIII PP); p. 156, no. 23 (C. 564), no. 25 (C. 596); p. 170, no. 189 (C. 251); p. 173, no. 166 (C. 273), no. 168 (C. 272); p. 174, no. 171 (C. 280), no. 173 (C. 279-2). Moderate—Much worn.

And one Greek drachma of the same types as *B.M.C.*, Caesarea Cappadociae, no. 29 (didrachm). Much worn.

NERVA. 9.

M. & S. ii, p. 224, no. 14 (C. 20), no. 19 (C. 113-3), no. 20 (C. 134), no. 24 (C. 48-3); p. 25, no. 31 (C. 117). Moderate—Much worn.

TRAJAN. 102, and one Greek drachm.

M. & S. ii, p. 245, no. 11 (C. 301-2), no. 13 (C. 294); p. 246, no. 22 (C. 295); p. 247, no. 40 (C. 214-2), no. 41 (C. 223), no. 42 (C. 224); p. 248, no. 50 (C. 236-2), no. 54 (C. 237), no. 56 (C. 238, *rev.* Pax), no. 59 (C. 241), no. 60 (C. 242-2), no. 60 var. (*obv.* C. 242—drapery on l. shoulder); p. 250, no. 91 (C. 3); p. 251, no. 99 (C. 121-2), no. 100 (C. 136), no. 104 (C. 199); p. 252, no. 115 (C. 68-7), no. 121 (C. 81-3), no. 122 (C. 87-2); p. 253, no. 116 (C. 69-4), no. 118 (C. 85-4—one with aegis), no. 119 (C. 86-5), no. 128 (C. 74-6, C. 75-1), no. 128 var. (cp. C. 74—*obv.* aegis), no. 129 (C. 76-2), no. 130 (C. 80), no. 142 (C. 89-3); p. 254, no. 147 (C. 98-4); p. 255, no. 161 (C. 378—*obv.* aegis); p. 257, no. 204; p. 258, no. 218, no. 220 (C. 537); p. 259, no. 222; p. 261, no. 243 (C. 9), no. 244 (cp. C. 26 *rev.* camel), no. 252 (C. 140-3); p. 262, no. 254; p. 263, no. 271 (C. 404), no. 275 (C. 398); p. 264, no. 291 (C. 497—*rev.* no Victory in hand); p. 266, no. 315 (C. 150-2); p. 267, no. 318 (C. 154-2); p. 268, no. 332 (C. 191), no. 334 (C. 193-2), no. 337 (C. 270-3), no. 338, no. 340 (C. 271), no. 343 (C. 278-5), no. 349, no. 349 var. (*obv.* H 2), no. 350 (C. 277—*obv.* laureate, draped r.), no. 353 (C. 272); p. 269, no. 361, no. 364 (C. 315). Moderate—Much worn.

One barbarous denarius.

Obv. IMP CAISNIR RAANO . . . AVGG IIIO A C
Bust, laureate, r., with drapery on l. shoulder.

Rev. TR POT XV COS IIII Draped figure standing
r., r. hand at side, holding corn-ears in l. hand;
to l., uncertain object. Much worn.

And one Lycian drachm (*B.M.C., Lycia in genere*, 9).
Worn.

IIADRIAN. 128.

M. & S. ii, p. 339, no. 4 c (C. 250); p. 340, no. 12 (C. 1011);
p. 345, no. 39 b, no. 41 a and c (C. 745-2), no. 42 a (4),
no. 44 c (C. 1015), no. 45 a (C. 1027), no. 46 a (C. 1350),
no. 47 (C. 1475); p. 348, no. 67 a and b (C. 1072, 1073-2);
p. 349, no. 71 b (C. 1065), no. 77 a, b (3), c (2), (C. 1102-
1104-6); p. 350, no. 80 b (C. 1190-2), no. 81 b (C. 1114),
no. 82 b (C. 1149-2), no. 85 a (cp. C. 1157); p. 351, no. 94 b
(C. 1140), no. 95 a (C. 1148-2); p. 352, no. 101 a (3), b (6)
(C. 1131, 1132-9); p. 353, no. 113 c (cp. C. 1174); p. 354,
no. 116 b (cp. C. 212), no. 118 b (C. 255-3), no. 120 a and
laureate, draped r. (2), (C. 600 &c.-3); p. 355, no. 126 b
(C. 816), no. 127 a (2), b (C. 902, 904-3); p. 356, no. 133 a
(cp. C. 1198), no. 137 a, b, aegis on l. shoulder and laureate,
draped r. (C. 1324, 1327 &c.-4), no. 141 b (C. 1477); p. 358,
no. 148 d (C. 332-2); p. 359, no. 154 d, no. 155 d (C. 307),
no. 158 d var. (cp. C. 309, *rev.* Neptune holds acrostolium
and trident), no. 160 d (C. 353-3), no. 161 d (C. 349-3),
no. 162 c (C. 337); p. 360, no. 169 d (C. 381-2), no. 171
(*rev.* modius in front of Annona-2), no. 172 d (C. 328-2),
no. 173 d (C. 336), no. 175 d (C. 374), no. 176 d (C. 392);
p. 361, no. 181 d var. (cp. C. 390—*obv.* AVGVST), no. 182 d
(C. 358-2), no. 183 d (C. 360-2); p. 362, no. 198 d (C. 454);
p. 364, no. 207 (C. 233 ?), no. 209 g; p. 365, no. 221 var.
(*obv.* b, *rev.* SECVRITAS PVBLICA COS III P P);
p. 367, no. 230 d (C. 170), no. 234 d (C. 615); p. 368,
no. 237 d (C. 630), no. 241 a a (2), b (2) (C. 716-4), no. 244 d
(C. 765-2); pp. 369-370, no. 256 a, d (C. 963, 966-2); p. 370,
no. 261 b; p. 371, no. 266 d (C. 1316), no. 267 b (C. 1336-2),
no. 268 d (C. 1329); p. 372, no. 276 e (3), f (C. 1427 &c.-4),
no. 282 d (C. 1455-2); p. 373, no. 290 a (C. 1481); p. 374,
no. 297 a (C. 99-2), no. 299 i (cp. C. 139), no. 300 c (C. 156),
no. 301 a (C. 188); p. 375, no. 305 a (C. 822), no. 307 a

(C. 867), no. 310 a (C. 989); p. 878, no. 327 f, no. 330 c (C. 295); p. 379, no. 339 e (C. 883-2); p. 380, no. 343 o (C. 395), no. 351 e, no. 360 c (C. 724); p. 381, no. 362 c (C. 882), no. 367 e (C. 1437). Fine—Much worn.

SABINA. 10.

M. & S. ii, p. 386, no. 390 var. a-r (but *rev.* double cornucopiae), no. 391 (C. 24-2), no. 395 a (C. 43); p. 387, no. 396 (C. 73-3), no. 398 var. a-r (C. 12-2), no. 399 a (C. 25). Moderate.

L. AELIUS CAESAR. 5.

M. & S. ii, p. 392, no. 430 (C. 50), no. 432 (C. 53-2), no. 436 (C. 1); p. 393, no. 439 a. Fine—Moderate.

ANTONINUS PIUS. 184.

(Struck under Hadrian, 2.)

M. & S. ii, p. 394, no. 447 a (C. 1058), no. 449 (C. 1060—*rev.* add "cornucopiae in l. hand"). Fine—Moderate.

(Own reign, 120.)

M. & S. iii, p. 28, no. 23 a (C. 84); p. 30, no. 42 (C. 831); p. 31, no. 49 a (C. 859), no. 51 a; p. 32, no. 54 b (C. 873); p. 33, no. 63 b (C. 59), no. 64 a (C. 123), no. 65 a; p. 34, no. 70 a and c (C. 405, 406-2), no. 73 c (C. 463); p. 35, no. 76 c (no TR P); p. 36, no. 86; p. 37, no. 98 (C. 467); p. 38, no. 105 b, *obv.* c (C. 1176); p. 39, no. 111 d var. (cp. C. 439—*obv.* laureate r.); p. 40, no. 112 (C. 451), no. 117 (C. 187 = C. 188); p. 42, no. 129 (cp. C. 203-3), no. 130 (C. 258); p. 43, no. 136 (C. 344), no. 137 (C. 345-2); p. 44, no. 143 (C. 809); p. 45, no. 154 (C. 945), no. 156 (C. 490); p. 46, no. 162 (C. 283); p. 47, no. 171 a (C. 670), no. 175 (C. 284-2); p. 48, no. 178 (C. 252), no. 180 (C. 218), no. 181 (C. 281), no. 183 (C. 304); p. 49, no. 188 (C. 264), no. 193 (C. 254); p. 51, no. 203 (C. 196), no. 204 (C. 288-3 and 1 with drapery on l. shoulder); p. 52, no. 206 a, *obv.* a (C. 585), no. 217 (C. 617); p. 53, no. 219 (C. 197-4), no. 221 (C. 290-2), no. 222 (C. 270-2); p. 54, no. 229 a (C. 198-3), no. 229 a var. (*obv.* laureate, draped r.), no. 231 (C. 291-2); p. 55, no. 238 (C. 201-9), no. 239 (C. 292), no. 240 (C. 272); p. 56, no. 245 (C. 273-2), no. 246 (C. 256), no. 249 (C. 983), no. 251 (C. 987-2), no. 252 (C. 979-2), no. 254 (C. 982-2); p. 57, no. 260 (C. 1016-5), no. 264 (C. 1023-5); p. 58,

no. 265 (2); p. 59, no. 274 (C. 1038-4), no. 275 (C. 1039-4), no. 282 (C. 527-3); p. 60, no. 286, no. 286 var. (*obr.* laureate, draped r.), no. 290 (C. 804); p. 61, no. 291 (C. 1102-2); p. 62, no. 294 (3), no. 298 (C. 360), no. 299 (C. 374), no. 300 (C. 383-2), no. 301 (C. 573); p. 63, no. 303 (C. 696), no. 305 (C. 741); p. 64, no. 311 (C. 530); p. 78, no. 417 b. Fine—Moderate.

(Struck under Marcus Aurelius, 12.)

M. & S. iii, p. 247, no. 429 (C. 154-2), no. 431 (C. 155-2), no. 433 (C. 153), no. 438 (C. 164-4), no. 441 (C. 357-2), no. 442 (C. 352). Fine—Moderate.

FAUSTINA I. 66.

M. & S. iii, p. 68, no. 338 (C. 215), no. 339 (C. 219); p. 69, no. 343 (C. 1), no. 344 (C. 26-6), no. 347 (C. 11); p. 70, no. 348 a (2), b (C. 67-3), no. 351 (C. 32-9), no. 356 (C. 96-2); p. 71, no. 353 (cp. C. 93-5), no. 360 (C. 787), no. 361 (4), no. 362 (C. 104-3), no. 363 (C. 120), no. 368 (C. 108); p. 72, no. 370 (C. 116), no. 371 (C. 119-2), no. 373 (C. 124), no. 374, no. 378 (C. 136-7), no. 379 (cp. C. 141-2), no. 381 b (C. 159), no. 382 a (C. 166); p. 73, no. 382 b (C. 165-4), no. 384 (C. 175); p. 374, no. 394 a (C. 234-4), no. 395 c (C. 236); p. 75, no. 400 (C. 291). Fine—Moderate.

MARCUS AURELIUS. 96.

(Struck under Antoninus Pius, 51.)

M. & S. iii, p. 79, no. 422 (C. 236), no. 423 (C. 389-2), no. 424 a (C. 451-2); p. 80, no. 429 a (cp. C. 105-4), no. 431 (C. 103); p. 81, no. 433 (C. 1006), no. 438 b (C. 608-2); p. 83, no. 448 d (C. 16); p. 84, no. 453 a (C. 645), no. 458 (C. 661-3); p. 86, no. 461 (C. 673); p. 87, no. 466 a (C. 702-2), no. 468 (C. 703); p. 88, no. 470 (C. 709-2), no. 473 (C. 721-3); p. 89, no. 475 a (C. 727 and C. 727 var., *rev.* no column-2); p. 90, no. 480 e; p. 91, no. 483 (C. 762). Fine—Moderate.

(Own reign, 60.)

M. & S. iii, p. 214, no. 2 (C. 30), no. 4; p. 215, no. 25 var. (cp. C. 510—*obr.* laureate, cuirassed r.); p. 216, no. 27 var. (*obr.* head, bare, with drapery on l. shoulder), no. 35 (C. 35); p. 217, no. 48 (C. 517), no. 50 (C. 519), no. 51 (C. 518-2); p. 218, no. 66 var. (*obr.* head, bare, r.); p. 219, no. 79 (C. 7); p. 220, no. 87 (C. 44); p. 221, no. 102 var.

(cp. C. 847—*obv.* drapery on l. shoulder); p. 222, no. 119 var. (C. 869—*obv.* ANTONINVS AVG. ARMENIACVS), no. 122 (C. 9), no. 124 (C. 473-8); p. 226, no. 163 (C. 873-8); p. 227, no. 170 (C. 881), no. 171 (C. 882-3), no. 176 (C. 890); p. 228, no. 191 (C. 899), no. 192 (C. 901); p. 229, no. 203 (C. 178-2), no. 206 (C. 412), no. 207 (C. 543-8); p. 230, no. 212 (C. 180), no. 213 (C. 186), no. 221 (C. 413), no. 222 (C. 546), no. 225 (C. 979), no. 226; p. 231, no. 227 (C. 113), no. 231 (C. 126), no. 235 (C. 141); p. 232, no. 252 (C. 257); p. 233, no. 259 (C. 280), no. 261 (C. 290-2); p. 234, no. 280 (C. 800); p. 236, no. 293, no. 301 (C. 325), no. 304 (C. 831); p. 237, no. 307 (C. 351); p. 240, no. 349 (C. 926), no. 352, no. 353 (C. 929); p. 241, no. 356 (C. 937); p. 243, no. 385 (C. 954); p. 244, no. 402 (C. 967); p. 245, no. 418 (C. 147-2). Fine—Moderate.

(Struck under Commodus, 5.)

M. & S. iii, p. 398, no. 267 (C. 80), no. 269 (C. 83-2), no. 272 (C. 84), no. 274 (C. 88). Very fine—Fine.

FAUSTINA II. 57.

(Struck under Antoninus Pius,³ 28.)

M. & S. iii, p. 93, no. 495a (C. 15-6), no. 496 (C. 21-4), no. 497 (C. 24-4), no. 502 (C. 54-4); p. 94, no. 506 (C. 155-2), no. 507 (cp. C. 176), no. 508 (C. 184-4); p. 95, no. 517 (C. 266-8). Fine—Moderate.

(Struck under Marcus Aurelius, 29.)

M. & S. iii, p. 268, no. 669 (C. 35), no. 674 (C. 85-2), no. 676 (C. 95-3); p. 269, no. 677 (C. 99), no. 686 (C. 110), no. 689 (C. 126), no. 690 (C. 127, *rev.* ?peacock); p. 270, no. 694 (C. 141-3), no. 700 (C. 147), no. 706 (C. 172); p. 271, no. 710 (C. 223—*rev.* ?no stars-2), no. 714 (C. 195), no. 715 (C. 197), no. 721 (C. 226); p. 272, no. 737 var. (cp. C. 286—*obv.* with stephane); p. 273, no. 740 (C. 6-2), no. 743 (C. 70-2), no. 744 (C. 71), no. 746 (C. 75-3). Very fine, Fine—Moderate.

³ It is possible that a few of the earliest coins with *obv.* FAVSTINA AVGVSTA, assigned here to the reign of Marcus Aurelius, may have actually been struck before the death of Antoninus Pius.

L. VERUS. 19.

M. & S. iii, p. 253, no. 482 (C. 155), no. 491 (C. 156-2), no. 491 a; p. 254, no. 501 (C. 6); p. 255, no. 509 (C. 8), no. 515 (C. 229-2); p. 256, no. 526 (C. 253); p. 257, no. 537 (C. 270); p. 258, no. 546 (C. 123), no. 560 var. (C. 131—*obv.* head, bare); p. 259, no. 561 (C. 126-3); p. 261, no. 586 (C. 111), no. 589 (C. 315), no. 595 (C. 318); p. 262, no. 596 a (C. 55). Very fine—Fine.

LUCILLA. 9.

M. & S. iii, p. 274, no. 757 (C. 6), no. 759 (C. 7), no. 762 (C. 14); p. 275, no. 770 (C. 86); p. 276, no. 785 (C. 71), no. 786 (C. 89-2), no. 787 (C. 90), no. 788 (C. 92). Very fine—Fine.

COMMODUS. 57.

(Struck under Marcus Aurelius, 6.)

M. & S. iii, p. 263, no. 616 (C. 609-3); p. 265, no. 636 (*rev.* read TR P for TR POT); p. 266, no. 649 (C. 762); p. 267, no. 666 (C. 775). Very fine—Fine.

(Own reign, 51.)

M. & S. iii, p. 368, no. 19 (C. 804); p. 369, no. 28 (C. 885), no. 29 a; p. 371, no. 44 (C. 846); p. 372, no. 57 (cp. C. 883); p. 373, no. 64 (2), no. 72 (2); p. 374, no. 73 (C. 44), no. 84 (cp. C. 931); p. 375, no. 86 (C. 940, but *rev.* Pax, not Commodus-2); p. 376, no. 95 (C. 17); p. 377, no. 102 (C. 476), no. 106 (C. 18); p. 379, no. 117 (C. 486-2), no. 121 (C. 497), no. 122 a (C. 492); p. 380, no. 124 (C. 504-2), no. 131 (C. 150); p. 382, no. 150 a (C. 212); p. 383, no. 157 (C. 397-2); p. 384, no. 164 (C. 537), no. 173 (C. 259); p. 385, no. 179 (C. 697); p. 386, no. 186 (C. 146-2); p. 389, no. 208 (C. 282-2); p. 390, no. 218 (C. 25), no. 220 (C. 127); p. 391, no. 224 (C. 655-2); p. 392, no. 253 (C. 583-8); p. 393, no. 235 (C. 578-8), no. 239 (C. 824), no. 241 (C. 288); p. 395, no. 253 (C. 195); p. 396, no. 255 (C. 239), no. 256 (C. 245); p. 397, no. 257 (C. 346-2), no. 261 (C. 703). Very fine—Fine.

CRISPINA. 4.

M. & S. iii, p. 398, no. 276 (C. 1); p. 399, no. 183 (C. 21-3). Very fine—Fine.

PERTINAX. 3.

(Own reign, 2.)

M. & S. iv. 1, p. 7, no. 1 (C. 21); p. 8, no. 11 a (C. 43).
Very fine—Fine.

(Struck under Septimius Severus, 1.)

M. & S. iv. 1, p. 94, no. 24 a (C. 6). Very fine.

CLODIUS ALBINUS. 1.

(Struck under Septimius Severus.)

M. & S. iv. 1, p. 44, no. 1 a (C. 58). Fine.

SEPTIMIUS SEVERUS. 180.

M. & S. iv. 1, p. 93, no. 13 (C. 231-3); p. 95, no. 32 (C. 301-2); p. 97, no. 49 (C. 381), no. 52 (C. 395), no. 53; p. 98, no. 58 (C. 43-5), no. 60 (C. 396), no. 61 (C. 390-2), no. 62 (C. 363); p. 99, no. 64 (C. 50), no. 67 (C. 397-2), no. 68 (C. 391), no. 69 (C. 404), no. 71 (C. 416), no. 71 a (2); p. 100, no. 76 (C. 51), no. 78 a (4); p. 101, no. 85 (C. 429-2), no. 86 (C. 419), no. 87 (C. 436-2), no. 88 a (C. 444-2); p. 102, no. 93 (C. 647-3); p. 103, no. 100 (C. 349-2); p. 106, no. 122 c (C. 21); p. 103, no. 107 (cp. C. 37, *rev.* AVC-3); p. 104, no. 113 (C. 315-2); p. 105, no. 117 (C. 449-2), no. 118 (C. 357-2), no. 120 c (C. 694); p. 107, no. 131 (cf. C. 243, *obv.* SEP-2); p. 108, no. 142 (C. 741-2); p. 109, no. 144 (C. 718-2); p. 110, no. 150 (C. 454, 3 dies, the point of wing dividing 11 in 3 ways-10); p. 112, no. 160 (C. 203-2), no. 166 (C. 586-2), no. 167 a (C. 599-8), no. 168 a (C. 612, *rev.* ? PROVID AVC, cf. note p. 112-2); p. 113, no. 170 (C. 670-3), no. 171 a (C. 761-6); p. 114, no. 176 (C. 370-7); p. 115, no. 184 (C. 372-2), no. 185 (C. 373-2); p. 113, no. 189 b (C. 461-3); p. 117, no. 196 (C. 469-3), no. 197 (C. 470, 471-7), no. 198, no. 200 (C. 476-4), no. 201 (C. 475-2); p. 118, no. 202 (C. 480), no. 207 (C. 493), no. 207 a, no. 211 (C. 489-3); p. 119, no. 218 (C. 514); p. 222, no. 248 (C. 1); p. 123, no. 253 (C. 25), no. 254 (C. 31), no. 257 (C. 109); p. 124, no. 261 (C. 135-3), no. 264 a (C. 181, in one the wheel is not clear-3), no. 265 (13); p. 125, no. 266 (C. 222-5); p. 126, no. 278 (C. 298-3); p. 127, no. 288 (C. 606-3); p. 128, no. 295 (C. 744-3); p. 129, no. 308 (C. 791-10), no. 309 (C. 794). Indeterminate, cp. pp. 97 ff., no. 52; pp. 101 ff., no. 85-1. F.D.C.—Fine.

JULIA DOMNA. 83.

M. & S. iv. 1, p. 165, no. 536 (C. 194-2); p. 166, no. 546 (C. 14-7); p. 167, no. 548 (C. 27), no. 551 (C. 47-8), no. 554 (C. 57-2), no. 555 (C. 76); p. 168, no. 557 (C. 79-2), no. 559 (C. 82), no. 560 (C. 97), no. 561 (C. 101); p. 169, no. 564 (C. 123-9, cf. no. 564, but lion on l. occupies whole space beside seat-1, cf. no. 565, but *MATER DEVM*-1); p. 170, no. 572 (C. 150-8), no. 574 (C. 156-18), no. 577 (C. 174-10), no. 580 (C. 198-4); p. 171, no. 587 (C. 246-3); p. 178, no. 640 (C. 97), no. 644 (C. 168-2). F.D.C.—Fine.

CARACALLA. 105.

M. & S. iv. 1, p. 212, no. 2 (C. 562-2), no. 4 (C. 587), no. 6 (C. 53-2); p. 213, no. 11 (C. 154-3), no. 13 (C. 505); p. 215, no. 24 (C. 82), no. 25 (C. 159-2); p. 217, no. 30 (C. 413/5-6), no. 33 (C. 19); p. 218, no. 39 (C. 542-3), no. 40 (C. 547), no. 42 (C. 553-4); p. 219, no. 45 (C. 590), no. 47 (C. 614-2); p. 220, no. 54 (C. 175-9), no. 55 a, but *obv.* *ANTONINVS AVGVS TVS* for *ANTONINVS PIVS AVG*-1; p. 222, no. 64 (C. 179-5), no. 65, no. 68 (C. 686-2), no. 69 (C. 499-4); p. 223, no. 74 (C. 50); p. 225, no. 81 (C. 421), no. 82 (C. 422-2), no. 83 (C. 424-10), no. 84 (C. 427); p. 226, no. 88 (C. 431); p. 227, no. 96 (C. 441-3); p. 228, no. 108 (C. 510, captive more like a soldier); p. 230, no. 120 (C. 3); p. 231, no. 124 (C. 23), no. 127 (C. 64-4), no. 130 (cf. C. 97-2); p. 233, no. 141 (cf. C. 546-8), no. 144 b (C. 658-4); p. 234, no. 150 (C. 688-5); p. 235, no. 158 (C. 128), no. 161 (C. 143); p. 237, no. 179 (C. 689-3); p. 240, no. 204 (C. 682); p. 263, no. 330 (C. 566); p. 267, no. 354 (C. 664). F.D.C.—Fine.

PLAUTILLA. 30.

M. & S. iv. 1, p. 269, no. 359 (C. 2), no. 361 (C. 10-2), no. 362 (C. 21-6); p. 270, no. 363 b (C. 1-5), no. 365 a (C. 12), no. 367 (C. 16-7), no. 369 (C. 25-8). F.D.C.—Fine.

GETA. 80.

M. & S. iv. 1, p. 314, no. 2 (C. 44); p. 315, no. 6 (C. 12), no. 8 (C. 36-2), no. 9 (C. 91); p. 316, no. 13 (C. 90-10), no. 15 (C. 159-4), no. 18 (C. 157-19), no. 20 a (C. 183-6); p. 317, no. 24 (C. 231-5); p. 318, no. 31 (C. 81), no. 34 a (C. 104-8); p. 319, no. 33 (C. 230-4); p. 230, no. 46 (C. 77), p. 321,

no. 51 (C. 170-6); p. 328, no. 94 (C. 49), no. 96 (C. 192); p. 329, no. 107 (C. 189). F.D.C.—Fine.

And two *Aes* coins—

(1) *As* of Hadrian.

M. & S. ii, p. 433 no. 716 d (C. 482).

(2) Dupondius of Marcus Aurelius.

M. & S. iii, p. 292, no. 982 (C. 549).

(the tribunician power—TR P XXIII—on obverse is uncertain.)

The hoard, it will readily be seen, belongs to a well-known class, that containing denarii from Nero to Septimius Severus or Severus Alexander, with, it may be, a sprinkling of legionary coins of Mark Antony at the beginning and of Antoniniani at the end. The Muswell Hill hoard, which is summarized for comparison with Bristol on pp. 86-7, may serve as a parallel and, indeed, as a very close one.⁴

The latest dated coin of our hoard, as of the Muswell Hill hoard, was of A.D. 208. The date is confirmed by the absence of any coins with BRIT. in the title of the emperors or of any coins of Geta as Augustus. The most noticeable feature in the composition of our hoard was the large number of early denarii. There were as many as 60 legionary denarii of Mark Antony, and the coins of Vespasian (162) actually outnumbered those of any other emperor down to Septimius Severus. The wear of the coins corresponded very closely to their age, and, where search for die-identities was

⁴ *Num. Chron.*, 1929, pp. 315 ff. Other examples that might be cited are Silchester (*Archæologia*, liv. 2, p. 473), East of England (*Num. Chron.*, 1898, pp. 126 ff.), and Llanarmon Dyffryn Ceiriog (*ibid.*, 1923, pp. 152 ff.); cp. also *ibid.*, 1929, p. 319, no. 4, where some further examples are quoted.

made, among the well-preserved coins of Septimius Severus and his family, they seemed to be definitely very rare, though not quite non-existent. We should naturally conclude that the hoard as a whole has been drawn in from the general market and that only, perhaps, in the case of quite the latest coins have we to think of "bank-money", still holding together in batches fresh from the mint and not yet scattered into general circulation.

The hoard, as we have seen, contained no coin later than A.D. 208. The latest coins must, however, have taken some time, if no long one, to reach the west of England, and, once arrived there, they were not necessarily deposited at once in the earth. Britain, as a whole, was free from serious disturbances in the whole of the period in which hoards of this class fall; the campaigns of Septimius Severus were all far to the north. It is likely enough, then, that the cause of burial was fear, not of the common foe from abroad, but of the common oppressor within. Our hoards may illustrate that revolt in defence of the denarius against the Antoninianus (introduced A.D. 215), of which Mr. Sutherland has recently written.⁵ It might be well worth while to test this hypothesis in fuller detail.

HAROLD MATTINGLY.

BERTRAM W. PEARCE.

⁵ *Coinage and Currency in Roman Britain*, p. 39 f.

VI.

SAUROMATES II'S REFORM OF THE CURRENCY.

[SEE PLATES IV AND V.]

IN working on the catalogue of the royal Bosphoran coins in the Hermitage I have been able, thanks to the exceptional completeness of our collection in that section, to apply the method of comparing the respective dies. Pieces struck from the same die are not rare among the Bosphoran coins, even at the beginning of the imperial epoch. Gold staters, as well as copper coins from the same obverse die, are met with often enough; identical reverses are found more rarely. Towards the end of the first century A.D., on the other hand, after the reigns of Rhescuporis II and Sauromates I pieces of identical dies begin to be very numerous. In the Hermitage collection alone we have not only instances where the number of coins obtained from the same obverse die amounts to a dozen or more specimens, but even pieces from the same pair of dies occasionally exist to the number of three or more.

After the reign of Mithradates VI the coining of silver was abandoned on the Bosphorus and thus during the imperial epoch the coinage of Bosphoran rulers is limited to gold and bronze alone. As a matter of fact, the method of comparing dies is especially important for the copper coins, which do not, like the gold staters, bear dates. By means of this method we can determine the synchronism of coins with different

reverse types and trace the sequence of coin groups. Moreover, the application of this method, by training the eye, permits us to compare the royal portraits on bronze coins with analogous portraits on the gold staters and to conclude that they were executed by the same hand, though on a smaller scale. Thus we find that both the gold stater and the bronze coin belong to the same series. In this way we obtain a sound basis for an absolute chronology of undated bronze coins, the importance of which cannot be underrated, if we keep in mind the length of the reigns of some Bosporan rulers.

An exact chronological classification of these bronze coins permits us to make some interesting observations. Thus under Sanromates I bronze coins dating from the first twenty-five years of his reign are very abundant. On the other hand, during the last six years (415-420 Bosp. Era = A.D. 118-123) the gold staters, which begin to be more numerous from that time, have no corresponding bronze series. It seems that in the year 415 B.E., the year following the accession to the throne of Hadrian, the issue of copper coins is abruptly suspended and instead of it the emission of gold staters increases.¹ Under Rhoemetalces we find a break of five years in the coinage of gold staters (434-438 B.E.), which again coincides with the accession to the throne of Antoninus Pius, and is perhaps connected with the sojourn of the king at Rome, mentioned by Julius Capitolinus.² It is very

¹ Cp. the lists of gold staters in Bertier-de-la-Garde's "Materials for Numismatological Investigations", *Numismatičeskij Sbornik*, vol. ii, pp. 106 sqq.

² *Vita Ant. Pii*, ix. 8.

probable that the issue of bronze coins was also interrupted at this time. Indeed, all the bronze coins of King Rhoemetalees in the Hermitage collection, save those from a unique obverse die that may belong to the later part of his reign, correspond to staters which precede the break. We can hardly doubt that in the second half of Rhoemetalees' reign the issue of copper coins became very scarce, while the issue of gold staters was continued on the same scale as before the break. Further examination of the tables in Bertier-de-la-Garde³ shows other cases where a revival of gold coinage on the Bosphorus is connected with changes on the Roman imperial throne. It appears that Rome kept a watchful eye over the Bosporan coinage, and, while approving the issue of gold staters, was displeased by a too abundant coinage of bronze. Indeed, Sauromates I and Rhoemetalees, who coined the largest bronze piece (marked MH—*sestertius*) in great quantities and practically no smaller coins,⁴ seem to have abused the right of coining copper with nominal value. The cause of such a policy on the part of Rome towards its vassal kingdom is not difficult to understand: inasmuch as the gold stater (*aureus*) retained its average weight of 7.80–7.90 grammes till the second century A.D. and was not affected by the temporary reduction of weight which the aureus underwent in Rome, its exchange for ten Roman denarii was profitable for the Romans. The result was the opposite in the case of exchanging one Roman denarius for four Bosporan bronze pieces

³ *Op. cit.*, pp. 114, 117, 119.

⁴ The two pieces of Sauromates I marked KΔ in the Hermitage are quite exceptional.

marked MH, as the intrinsic value of these coins apparently was much inferior to their nominal value.⁵

At this point it becomes necessary to discuss the meaning of the value-marks found on Bosporan bronze coins. The bronze coinage of Sauromates II has been chosen as the principal subject of this paper. It furnishes abundant matter for discussing this question and at the same time it shows clearly the advantages of the method of die-comparison for the classification of Bosporan coins.

Leaving aside the enigmatic bronze coins, which bear the monogram $\overline{\text{BAE}}$,⁶ the successive stages in the use of value-marks on Bosporan royal coins appear from the table of weights illustrating the bronze coinage in the first to second centuries A.D., and can be summarized as follows. During the reigns of Aspurgus, Mithradates VIII, and Cotys I, the principal, largest, and we may say the sole regularly coined bronze piece is that of twelve units, bearing the mark IB .⁷ All the other contemporary pieces of four, six, eight, and ten units⁸ are exceptions and their issue cannot be considered as regular. In the year 62 Nero introduces instead of the coin of twelve units two bronze pieces of larger size marked KA and MH, containing 24 and 48 units respectively.⁹ The gradual

⁵ Though we have no positive evidence for a wide circulation of Roman denarii in the Bosporan kingdom itself, they were undoubtedly current in the western Crimea and in the Caucasus; in the latter we find simultaneously Cappadocian provincial silver coins.

⁶ They deserve a special study; in any case their date is about the beginning of our era.

⁷ E. H. Minns, *Scythians and Greeks*, Pl. VII. 7, 8, 19.

⁸ *Ibid.*, Pl. VII. 5, 12, 13.

⁹ *Ibid.*, Pl. VII. 21. The coins with the inscription: $\tau\epsilon\mu\alpha\lambda\ \beta\alpha\sigma\iota$

fall of weight which we can trace in the coins marked IB leads us to suppose that the monetary system inaugurated by Nero on the Bosphorus depended on the growing depreciation of the current bronzo coin, which in its turn caused the issue of larger pieces. The arrangement of Nero seems to have satisfied the need for current money; at least his system of currency lasted on the Bosphorus for more than a century, although, as we have seen, some rulers display a tendency to issue in great quantities the larger bronze piece MH alone, a circumstance apt to produce a further depreciation of the current bronzo money. From the latest years of Rhescuporis II the average weight of bronze coins, as seen from the table, remains throughout the period concerned almost invariable, and it even rises again in the first part of Eupator's reign, after a slight decline under his predecessors. Nevertheless, the bronze coinage of this latter king is of considerable interest, as it forms a kind of transition to the monetary reform of his successor. His coins of larger size, marked MH, are very few, and, moreover, they are distinctly divided into two groups. Those which bear traditional types inherited from the preceding reigns display the normal average weight of about 12 grammes. All belong to the first years of his reign. On the other hand, the second group comprises coins similarly marked MH, which bear on the obverse

λέως Κόννος τοῦ Ἀσπούργου marked ΚΔ (*ibid.*, Pl. VII. 20) cannot be considered as preceding the Neronian reform; they resemble so closely the large (MH) pieces of Rhescuporis II with analogous type and legend (*ibid.*, Pl. VII. 25), that it is very tempting to consider both groups of coins as contemporary. The inscription *τρυμνὶ βασιλέως Κόννος* does not contradict such a dating, as it may be posthumous.

the king's head together with that of the patron goddess or of the emperor M. Aurelius, and thus they cannot be previous to the year A.D. 161. All coins of this latter group show a sudden fall of weight (average about 8.5 grammes). It must be remembered further, that, particularly after the accession of M. Aurelius, Emperor coined a great quantity of staters, although of pale gold.

Now we can turn to the coinage of Sauromates II. This king did not issue any coins marked $K\Delta$; the smallest bronze pieces coined during his reign are those of 48 units (with MH) and their number is small. On the contrary, the pieces of larger size, marked $PM\Delta$ (144 units), \times (denarius), and $B\times$ (double denarius) respectively, are more numerous. Bertier-de-la-Garde¹⁰ has published a unique coin from his own collection bearing the mark 95 (96 units). The denominations given in brackets are those proposed by Th. Mommsen.¹¹ According to him, the unit of account applied in the Bosphoran bronze coinage from the beginning of the imperial epoch is the ounce, and consequently the principal denominations used are: $1B = \text{as}$, $K\Delta = \text{dupondius}$, $MH = \text{sestertius}$, $\times = \text{denarius}$, $B\times = \text{double denarius}$; $PM\Delta (= \text{three sestertii})$ has no corresponding piece in the Roman coinage, nor have the coins with the mark H and others occasionally occurring at the beginning of the imperial epoch. Mommsen himself has noted this fact, and it presents the chief argument against his view. For this reason, and especially taking into account that values of one and two *denarii* are

¹⁰ *Numismatičeskij Sbornik*, vol. i, p. 312.

¹¹ *Geschichte des Römischen Münzwesens*, p. 700.

much too heavy for bronze coins weighing about 11 and 16 grammes respectively, Bertier-de-la-Garde¹² does not accept Mommsen's view. He proposes, on the contrary, to take as the unit of account half an ounce, which was chosen, according to him, as being equivalent to the local unit of bronze money current on the Bosphorus at the beginning of the imperial epoch. Thus the above-mentioned bronze coins are only worth half as much, and, of the denominations of the Neronian reform, that marked KA represents an *as* and MH a *dupondius*. But, according to Bertier-de-la-Garde's view the larger figures— 95 and $\text{PM}\Delta$ —on the coins of Sauromates II do not represent the same unit. He supposes that the reform of this king consisted in an attempt to restore the *as* and *dupondius* of full weight after the long depreciation which these bronze coins had undergone during the preceding century. In order to distinguish clearly the new full-weight coins from the depreciated ones of the preceding period, the former value-marks, he says, were abandoned and instead of them for the *as* the sign X and for the *dupondius* XB were introduced. Lesser denominations were no longer expressed in half-ounces, but in scruples, the 95 being a *triens* and $\text{PM}\Delta$ a *semis*. According to him all the coins of Sauromates II marked MH were previous to the reform, and, as some of them bear the head of Septimius Severus, the reform of the coinage cannot be earlier than the last years of the second century A.D.

Every one will agree that the hypothesis of Bertier-de-la-Garde is far-fetched and hardly acceptable; it

¹² *Op. cit.*, pp. 305 sqq.; cp. E. H. Minns, *op. cit.*, p. 633.

raises many more objections than that of Mommsen. Leaving apart the improbability of his suppositions that the sign * can designate anything but the *denarius*, that small change coins like the *semis* and *triens* were issued on the Bosphorus towards the end of the second century, and that the reduced unit, the scruple, could be considered as a unit of bronze coins, a decisive proof against his view is furnished by the comparison of dies. There exist coins marked PMΔ as well as others marked MH, which are contemporary and undoubtedly belong to the same series; cases are met with when both denominations are struck from the same obverse die. Consequently, both numbers refer to the same unit.

A thorough study of the bronze coins of Sauro-mates II compared with his staters permits us to divide his bronze coinage quite distinctly into three periods, as follows:

Period I, A.D. 174-186 [Pl. IV. 1-8] contains only those bronze coins marked MH (*sestertii*). Their average weight—7.55 grammes—is a gramme lighter than that of the corresponding coins from the later part of his predecessor's reign. Their types vary sometimes, but those occurring most frequently are the king's portrait on the obverse and the value-mark MH included in a wreath on the reverse. The number of coins is very restricted, and not one countermarked piece of that period is known to me.

Period II, A.D. 186-196 [Pls. IV. 11-13; V. 1-5]. This second period evidently starts with the year of the reform. Four denominations are coined: S-* (average weight 15.95 grammes), * (11.18 grammes), PMΔ (10.90 grammes), and MH (5.93 grammes). The

unique piece with 95, which certainly represents a short-lived experiment, will be discussed later. The obverse type represents invariably the king's portrait, the reverse types of the lesser denominations are strictly fixed: X—the seated goddess (Aphrodite?); PMΔ—the eagle bearing a wreath in his beak; MH—the same type or the value-mark in a wreath or the royal armour. The types of the largest coins vary greatly: the king riding and raising his hand, the king standing with attributes of Heracles and Poseidon, sometimes crowned by a Victory,¹³ the royal insignia, all the exploits of Heracles. The coinage is very plentiful during that period, the total number of bronze coins in the Hermitage amounting to 179 pieces. It is remarkable that a great many of these coins are countermarked with a head of Sept. Severus.

Period III, A.D. 196-210 [Pl. V. 6-13]. The bronze coinage of this period is again scarcer; the total number of bronze coins in the Hermitage does not exceed 70 pieces. The weight and the types of the two smaller denominations remain almost unchanged. The weight of the larger piece (B-X) falls considerably (9.89 grammes); its reverse types are restricted to the riding king and seated goddess. This latter type was formerly used only for the next denomination. The denarius (X), on the other hand, issued during this period in very small quantities, is specially distinguished by an Eros or a Victory advancing towards the goddess.

¹³ These triumphal coins correspond to the staters either of the year 489 B.E. or of the year 491 B.E., and it cannot be a mere accident that one inscription of the year 490 B.E. mentions victories over Sirachi and Scythians and the expulsion of sea-robbers from the Pontus. Ios., *P.E.*, ii. 423; Minns, *op. cit.*, p. 655, no. 52.

A characteristic sign invariably present on all the coins of this period is a head of Septimius Severus engraved in the field of the reverse die.

On account of this grouping we may trace the evolution of bronze coinage during the reign of Saurromates II in the following way. Through the first decade of his reign his coinage differs little from that of his predecessor. The issue of staters (of pale gold) is restricted, as well as that of the only denomination of bronze coins (MH), which in their weight come quite close to those of the later years of Eupator. About the year 186 apparently the Bosphoran kingdom underwent a monetary crisis, and a want of current money was experienced. It was perhaps caused by the preparations for the wars and expeditions, the successful accomplishment of which is celebrated in the inscription dated 490 B.E. (= A.D. 193). In fact, we can state that an enlargement of the issue of staters takes place shortly after 186 and the reform of the bronze coinage starts just from that year. Inasmuch as the only denomination of bronze coin of the preceding period had lost almost half of its initial weight and apparently had been completely depreciated, the purpose of the reform must have been to create side by side with that piece a new bronze coin possessing a larger purchasing power. The first attempt to regulate the crisis consisted in the issue of bronze pieces, which retained almost invariably the weight of the former sestertins, but assumed, together with a new reverse type, the eagle bearing a wreath in his beak,¹⁴ a double nominal

¹⁴ This reverse type was soon afterwards used for the PMΔ denomination.

value expressed by the mark 95; thus they were reckoned at the rate of two sesterces or a *quinarius*. However, apparently this measure—a simple doubling of the nominal value—did not meet the needs of the moment; the rise in prices had progressed and demanded a much larger increase of the nominal value of coins. Therefore, this experiment was short-lived, and the coin published by Bertier-de-la-Garde, mentioned above, remains its unique representative. The actual reform, which followed it immediately and seems to have succeeded, introduced, besides the sestertius bronze coins corresponding in value to a drachm, a denarius, and a double denarius. Fortunately, however, we possess in the Hermitage collection ¹⁵ [Pl. IV. 1, 8] a bronze coin of the year 186, as the stater [Pl. IV. 7] shows, which certainly represents the first stage in the realization of the reform. Unlike all the coins of the preceding period, the king's portrait on the obverse lacks an inscription with his name and title surrounding it. This legend is transferred to the reverse and instead of it only the value-marks *—B figure in the field besides the portrait. Such a departure from the traditional scheme well suits the first issue of this new and exceptionally large denomination, in which the value-marks had necessarily to occupy a visible place in order to make them recognizable at the first glance. This issue formed a short-lived episode and the traditional scheme prevailed again; this is proved by the fact that not only did the coin lacking the name and the

¹⁵ A second specimen of this coin is found in the Vienna collection, cp. Oreshnikov, *Numismatičeskij Sbornik*, vol. iii, p. 65, Pl. II. 42.

title around the head remain unique, but also that the obverse die of this coin itself underwent a change later on: in spite of the value-marks, traces of which are quite distinctly visible, the usual inscription *Βασιλεως Σαυροματου* was engraved around the portrait of the king and then the die was actually employed again for the coining of lesser denominations, like the denarius no. 221 of the Hermitage collection [Pl. IV. 9].

This time the reform had a real, although certainly, temporary effect: a great number of pieces marked Χ-B, Χ, ΡΜΔ (those marked ΜΗ were issued in lesser quantity) were current down to the year 196, which forms the starting-point of the last period. In this very year Byzantium, the most obstinate of all the cities which had taken the part of Pescennius Niger, surrendered to Septimius Severus, and he became master of the eastern as well as of the western part of the empire. It is quite natural that from that moment, throughout the following period, the head of Severus engraved in the die forms an essential part of the type of the bronze coins. This was especially necessary as the three larger denominations of these coins corresponded in value to silver coins bearing the portrait of the reigning emperor and current in the neighbouring provinces.

Probably shortly before this date all the double denarii, denarii, and drachms, issued during the preceding second period and still current, were counter-marked with the emperor's head. We do not know whether Sanromates II did so of his own accord or by order of Rome, but it is very probable that both the appearance of countermarks with the head of

Severus and the issue of coins bearing his head engraved in the die are connected with the moment when this emperor after having defeated his competitors gained a free hand in his eastern policy. It is noteworthy that during this last period the weights of the larger denominations at least (cp. the table, p. 116) once more undergo a considerable reduction, and at the same time the number of gold (or rather electrum) staters in circulation again increases (especially in the year 198). This fact—the steady connexion between the reduction in weight of bronze coins and the increase in number of gold staters in circulation—furnishes an important argument against the view of Bertier-de-la-Garde that the purpose of the reform was to restore the bronze coinage to full weight. On the contrary, the bronze coins in the Bosporean kingdom must always have represented a kind of credit and exchange money with conventional values, supported and guaranteed by the contemporary issues of gold staters. There exist denarii bearing the reverse type of the seated goddess and the sign ✕, and issued during the second period of Sauromates II, which have in addition two countermarks: one with the head of the emperor, and another with the letter B. According to Bertier-de-la-Garde's view they are quite inexplicable, but they may be fairly explained if we bear in mind that the weights of the bronze coins continued to fall and that during the last period of Sauromates II the double denarius became equal in module, weight, and type to a denarius of this king prior to the year 196.

Thus the hypothesis of Bertier-de-la-Garde must be rejected, and the scheme proposed by Mommsen

appears much more plausible. It remains for us to review the objections which have been raised against it. As we have already said, the denomination $\text{PM}\Delta = 144$ ounces = three sesterces does not fit into the Roman monetary system. But we may suppose that on the eastern market there was a corresponding coin in the provincial drachm, reckoned equivalent to three-quarters of a Roman denarius.¹⁶ Another point which deserves attention is the sharp disproportion in weight between the Bosporan bronze coins and those struck at Rome. If we leave out the larger denominations which have a purely token character, and consider the history of the principal denominations—the *as* and the sesterlius—as shown on the table of weights, we can make the following deductions. Although the weights of these pieces, even at the beginning of their issue, are very irregular and their average weights differ considerably from those of the corresponding Roman coins, the highest among their weights, especially at the beginning of their issue, come much closer to the Roman norms. The picture is the same as that presented by the quasi-autonomous coinage of Chios¹⁷—the only local bronze coinage that offers an uninterrupted series of coins constantly

¹⁶ Mommsen, *Zeitschrift für Numismatik*, vol. xiv, p. 40. As to the coins marked H, Δ , and I (perhaps also Σ), which appear only in the first half of the first century A.D., they can hardly represent the same unit as a Roman ounce. These pieces must rather be the last representatives of coins based on a local Greek unit and thus the descendants of the bronze oboloi and their fractions, struck in the time of Mithradates VI and Asander. We have no certain data to judge whether this unit was a chalcos or not, neither have we the means to state how many of them would make an obolos.

¹⁷ Mavrogordato, "Chronology of the Coins of Chios", *Num. Chron.*, 1918, pp. 1-79.

bearing value-marks from the beginning of the imperial epoch down to the reign of Gallienus. Further, if we similarly deduce the norm of the *as* from the average weights of the sesterces alone, we obtain for the whole reign of Sauromates II an average weight of 1.50-2.00 grammes, which does not differ widely from the *as* during the third century in the coinage of Chios as well as in the local coinages of the cities of Meesia, which similarly used value-marks.¹⁸

We cannot leave unanswered the further question raised by Bertier-de-la-Garde: was it possible that the Roman government would tolerate in its vassal kingdom the issue of bronze coins equivalent to various denominations of silver coins? Mommsen did not pay special attention to the precise date of the coins provided with the sign \times . He seems to refer the greater part of them to the third century, when the Roman denarius itself had become fully depreciated. We have been able to determine with certainty that the reform dates from A.D. 186. Nevertheless, such dating, earlier though it is, does not forbid the assumption that the system admitted the introduction of bronze double denarii, &c. In fact, as recently shown by Fr. Heichelheim,¹⁹ the Roman denarius underwent the first decisive impulse to depreciation just during the reign of Commodus. A sudden doubling or trebling of prices is noted by him in Egypt and in Asia Minor as a symptom of this depreciation. The reduction in weight of the silver

¹⁸ Pick-Regling, *Die antiken Münzen Nordgriechenlands*, vol. i, pp. 75, 625.

¹⁹ *Zur Währungs- und Geldkrise des römischen Imperiums im 3. Jahrh. n. Chr.*, Klio, xxvi, 1932, pp. 96 sqq.

didrachm in Caesarea Cappadociae at the same time depends probably on similar causes.²⁰ We have no epigraphic or literary evidence as to the economic situation on the Bosphorus at that period. However, there exist Olbian coins which prove that the Black Sea region was similarly involved in the crisis. I



FIG. 1.

mean the coins (fig. 1) issued towards the middle of the second century or even earlier, but still current during the second half of the century; these often bear three countermarks: one containing a caduceus and the other two letters. The letters are, in the case of the lesser module A and Δ, in the case of the larger module B and H. These letters in countermarks, which must have been stamped very soon one after another, and which apparently both belong to the first part of the reign of Commodus, are especially interesting, as they show that it was suddenly necessary to raise the nominal value of the same piece by four at that moment.

Finally, why should the Bosporan kingdom from

²⁰ *Num. Chron.*, 1934, p. 57. E. A. Sydenham, *Coinage of Caesarea in Cappadocia*, pp. 8, 91. We may be specially interested in this fact, as the Cappadocian silver coins were current in the neighbouring Caucasus district.

the time of Nero issue sesterces and *dupondii* alone, and towards the end of the second century replace them by bronze *denarii* and double *denarii*, while the cities of Thrace and Moesia were at a later date still content with sesterces as the largest pieces for their currency? I consider that it may be explained by the fact that these cities were solely interested in satisfying the everyday needs of the domestic market. On the other hand, the Bosporan region was a vassal kingdom obliged to guard the Roman frontier and so had to support numerous armed forces. The purpose of the issue of gold staters as well as of the bronze coins was chiefly the payment of war enterprises. It is significant that the Roman emperor Nero, who attempted to transform the Bosporus into a Roman province, was the first to double and quadruple the value of the current bronze money.

A. N. ZOGRAPH.²¹

²¹ The author and editors are indebted to Professor Ellis Minns for reading the manuscript and proofs in English and comparing them with the Russian original. It has not been possible for the author to correct the proofs.

PL. IV. 1, 3, 5, 7, 10, 12, and PL. V. 1, 6, 8, 11 are, of course, electrum staters whose dated portraits provide a chronological framework into which the undated bronze coins with similar portraits can be fitted.

TABLE OF WEIGHTS OF THE BOSPORAN COINS DURING FIRST TO SECOND CENTURIES A.D.

	XB [double denarius]				X [denarius]				PMA [drachm]				MH [sestertius]				K Δ [dupondius]				IB [as]			
	Aver.	Max.	Min.	Num.	Aver.	Max.	Min.	Num.	Aver.	Max.	Min.	Num.	Aver.	Max.	Min.	Num.	Aver.	Max.	Min.	Num.	Aver.	Max.	Min.	Num.
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Coin with monogr. BAP Aspurgus A.D. 14-38																	8.06	13.78	5.15					77
MITHRADATES VIII: A.D. 39-41																	7.04	11.10	5.05					90
COTYS I: A.D. 44-54 A.D. 54-60																	7.60 6.66	11.18 8.50	3.74 3.28					67 16
NERO: A.D. 62																	10.43	12.80	7.44					12
COTYS I after A.D. 62 or RHESCURION II at the beginning of his reign																	6.62	8.17	5.28					21
RHESCURION II: About A.D. 68 A.D. 68-80 A.D. 80-91																	6.35	8.84	4.90					21
SAUROKATES I: A.D. 92-103 A.D. 103-123																	5.72	6.87	4.57					2
COTYS II: A.D. 123-132																	7.65	10.65	4.60					10
RHOEMETALCES: A.D. 131-153																								
EUPATOR: A.D. 154-160 A.D. 160-170																	7.91	12.56	4.21					23
SAUROKATES II: A.D. 174-168 [1 per.] A.D. 180-176 [11 per.] A.D. 190-210 [111 per.]	15.06 9.89	23.60 18.88	9.00 6.00	72 46	11.15 9.96	16.77 11.65	8.55 8.35	50 7	10.90 7.54	17.71 8.11	8.17 6.17	52 11												

1 Average weight; 2 maximum weight; 3 minimum weight; 4 number of specimens.

MISCELLANEA.

MORE LATE AES FROM EGYPT.

PROFESSOR SIR FLINDERS PETRIE has kindly put at my disposal for examination six finds of late *Aes* made by him some years ago in the Hawara district. Some of these are of exceptional interest.

Their interest, however, is economic rather than purely numismatic. There is hardly a coin among them which adds to our numismatic knowledge. The types are the trite ones characteristic of their respective periods and their few legible mint-marks are nearly all, as we should expect, of the East. So, while keeping a detailed record in case the need for future reference should arise, I content myself here in the main with a bald résumé of their contents, adding now and then a few notes where these seem to be advisable. The little known and often misquoted fifth-century types, however, have received as full treatment as the state of the coins allowed.

1. c. A.D. 420.

The latest coins of certain date are some in which Arcadius, Honorius, and Theodosius II share. However, two show the distinctive late Victory and the ending - - - AVGG, and the deposition of the hoard must, I think, be placed towards the end of Honorius' reign at the earliest.

This hoard differs from all others of my experience in that every coin (except two) in it is halved or quartered—many carefully with the aid of a chisel-cut—or broken into less regular fragments. Even a thin "imitation" appears as a half, weighing 0.16 grm. The two which escaped mutilation were an "imitation" of Dr. Milne's "Copies G" class (0.4 grm.) and a very barbarous *Salus* (0.55 grm.).

The coins were distributed over periods as follows:—

Constantinian. 12.

Constantian. 183.

Jovian. 2.

Valentinianian. 243. Of the *Restitutor reip.* type there was only one example, of *Concordia Augg.* (post A.D. 378) three. There were more than twice as many of the *Securitas* as of the *Gloria* type. The

average weight of these halved $\text{Æ}3$ was a little under a gramme.

Theodosian. 209. There were 149 "Salus" (only one seen of Honorius) and of these some were quartered. The *Voti* coins have an interest of their own and I give their numbers: *Vot V*, 4, all of Arcadius; *Vot X mult XX*, 29; *Vot XV mult XX*, 5, all of Gratian; *Vot XX mult XXX*, 6, two of Gratian, one of Theodosius alone legible. The average weight of these halved $\text{Æ}4$ was about half a gramme.

Joint reign of Arcadius and Honorius. 25. $\text{Æ}3$ "Three Emperors standing" type, 6; *Urbs Roma felix*, 7. $\text{Æ}4$ *Concordia Auggg.* 8; *Concordia Aug.* 2. There is a consistent rough approximation to 1 grm. and 0.5 grm. respectively in the halves of the $\text{Æ}3$ and the $\text{Æ}4$.

? End of Honorius' reign. 2.

Of the thin "Copies G" class I recognized only three, two halved (0.2 and 0.3 grm.) and one unbroken (0.4 grm.). Besides the 676 coins classified above there were about 450 which I was unable to classify. These included two of pure lead, halved like the rest.

2. ? c. A.D. 480.

This consists of 43 coins, none of which are halved. With them came the remains of a small leathern purse, such as is still used in N. Africa. They comprised:

Constantinian. 1. This is, however, a thin cast of uncertain date. It is fairly worn.

Constautian. 3.

Theodosian. 4.

Joint reign of Arcadius and Honorius. 6.

Joint reign of Honorius and Theodosius II. 2.

Marcian. 6.

Leo. 6. There were two each of "Monogram", "Lion", and "Empress" holding cross on globe" types.

¹ Sabatier 15 "Emperor"; but I think Col. Ulrich-Bansa is right in asserting that the head is that of an empress. Cf. *Num. Chron.*, 1937, pp. 151-2, where his article is reviewed.

Zeno. 1. This was a *Salus* type with barbarous lettering. The *obv.* read clearly ~~████~~ N Z E ~~████~~.

The coins, with the exception of those from Marcian onwards, showed traces of considerable wear. Fourteen remain unclassified.

It is difficult to imagine differences of value in these coins. One of the larger Constantian $\text{Æ} 3$ (16 mm.) weighs exactly the same as one of the later Arcadian " $\text{Æ} 3$ " (12 mm.), viz. 1.5 grm. Others, again, theoretically of the latter module but 11 and 13 mm., weigh respectively 1.15 and 1 grm. while another of the earlier and larger size (now broken, but 14 mm.) weighs only 1.1 grm. The only Æ coin struck for some years before the deposition of the hoard seems to have been c. 10 mm. and c. 1 grm.

3. ?c. A.D. 480.

This hoard of about 880 coins is, like the last, datable by coins of Zeno, the latest that I am able to identify. It contains a great many "imitations" of the "Copies G" class and also—especially for the last half of the fifth century—of a class of dumpy coins often holed or showing a whitish patch of corroded metal, presumably lead—a preliminary stage of the hole. This would seem to indicate a common and local origin for most of the coins of Leo and Zeno in this hoard. All except the later coins are badly worn.

Constantinian. 4.

Constantian. 47. Most of these seem to be "imitations", either struck on small flans of c. 11–12 mm. or cut down. One, however (12 mm., 1 grm.), is almost perfect and may possibly be a legitimately struck half of the usual $\text{Æ} 3$ coin. I have in previous reports drawn attention to similar, but certainly very rare, instances of what may have been a recognition by the State of the need of "small change".

Valentinianian. 49. Here again the "*Securitas*" more than twice outnumbers the "*Gloria*" type. Only one of the two or three normal-sized coins is unbroken; the rest are all between 13 and 10 mm. in module and average 1.3 grm. in weight, and seem to have been originally struck on flans too small for the die. This is especially noticeable in coins bearing the Alexandrian mint-mark.

Theodosian. 114. There are 76 of the *Salus* type, all legible mint-marks but one (AQP) being Eastern. *Vot X mult XX*, 20; *Vot XV mult XX*, 1; *Vot XX mult XXX*, 1.

Joint reign of Arcadius and Honorius. 31. The "Three Emperors standing" type ranges from 15 to 11 mm. and 2.1 to 1.1 gm. It is difficult to believe that they can all be the same denomination and equally difficult to understand how, if they are of two denominations, the boundary-line could have been discerned. Larger module and heavier weight by no means always coincide.

Joint reign of Honorius and Theodosius II. 11. All are worn and broken or cut down. Average weight, 1.2 gm.

Probably c. A.D. 420-30. 30. These are all of types associated with the names of Honorius, Johannes, Theodosius II, and Valentinian III. As, owing to their general illegibility, they are little known—though latterly evidence has been accumulating—I give here full details, so far as it is possible.

Type A. Victory st. or adv. l. with wreath and palm.

Rev. 1. *Victoria Augg.* 7. *Victor* is completely visible only on one coin; and --- *Augg* only on one coin. No Emperor's name is legible. Mint-

marks $\frac{P|}{RM}$ 1, $\frac{Q|}{\text{■■■■}}$ 1, $\frac{E|}{RM}$ 1. These might be of either Honorius or Valentinian III.


Rev. 2. *Salus rei[publice]*. 3. $\frac{S|}{RM}$ 1, with *obv.* of

Valentinian III, $\frac{E|}{\text{■■■■}}$ 1; the third is barbarous.

I have seen this only for Galla Placidia and Valentinian III.

There are also 19 barbarous of type A closely resembling those illustrated in Wroth's *Coins of the Vandals*, Pl. III. The legends are blundered and meaningless or in two instances represented by lozenges; cf. Wroth, *loc. cit.*, Pl. III, 10.

Type B. Victory carrying trophy and dragging captive l.

Rev. [Sal]us rei-[publice or -ae]. 1. . I have

seen this type with this mint-mark only for Johannes, Theodosius II, and Avitus (Hamburger Cat., No. 96, lot 1073). But reverse division and ending vary. In the present coin the Emperor's name is illegible. These coins average 11 mm. and c. 1.3 grm.

Probably c. A.D. 430-50. 49. Of these 39 had "no legend. Cross in wreath". Only 4 were from a Western mint, i.e. Rome.

c. 450-?480. 78.

Marcian. 17. All "Monogram". Average weight of 13, 0.9 grm.; of the 4 smallest, 0.5 grm.

Leo. 57. I give the average weights in brackets. Monogram, 16 (0.9 grm.); Lion, 15 (1.0 grm.); Emperor standing (a) with cross on globe, 21 (1.1 grm.), (b) with captive, 5 (0.9 grm.).

Zeno. 4. All monogram (0.85 grm.).

Besides the coins listed above there were nearly a hundred examples of the thin "Copies G" class. They average only 0.5 grm. in weight. They imitate with excellent workmanship in typo and lettering coins ranging from Constantine I down to Theodosius.

The following coins I am unable to identify with known types; they seem to be of the class illustrated by Wroth, *loc. cit.*, Pl. III, iv:

Obv. [----P]ERPA. Rev. Apparently two seated nimbate figures. This is a dumpy coin with the corroded centre characteristic of Leo's coins in this hoard.

Obv. Obliterated. Rev. A small thick cross in a small circle around which are apparently letters. The coin is of "Copies G" class.


Obv. DN V----. Rev. GLO---. Standing figure, facing, head r., holding in r. hand standard Apparently a broken (late) Æ 3.

Obv. Rude bust. Rev. Emperor advancing l., holding ?globe in r. hand and ?long sceptre in l.

Obv. Very barbarous bust. Rev. A scratchy ?nude figure holding in r. hand an indeterminate object

(merely scratched on the die). This small coin is interesting from the rarity of this extreme barbarousness in Eastern hoards.

Obv. Bust with D - - - AΛ. *Rev.* Victory adv. l., holding wreath and palm, both in front of her. Below palm, a neat cross. The figure is much more graceful than on the contemporary legitimate coinage.

Obv. Bust with cross above. The traces of letters suggest Theodosius (II). *Rev.* Cross in wreath  TΔ. There are nine "coins" of lead, 8-11 mm., 0.4-0.85 gm., all neatly rounded and blank, except that two may have been slightly impressed on one side.

Unidentified. 363. Of these about 30 were originally Æ3. They are almost indistinguishable in size and quite indistinguishable in weight from many Æ4. The Æ4 again sinks to a minimum of 7 mm., 0.4 gm., by almost imperceptible gradations from its maximum size and weight.

4. ?End of Fifth Century.

This hoard of 348 coins is very similar, except in numbers, to the last. The latest coins I can date are Zeno's, which are not much worn. One coin, however, with a monogram unknown to me, may suggest a later Emperor. The l. side of the monogram is obliterated. The r. side—an upright with a small cross-piece at the top, surmounted by a V, as in Wroth's Pl. IV, 14, 15 (Anastasius)—has, joined to its lower half, what appear to be N and M ligated. The coins as a whole are badly worn.

Constantinian. 4.


Constantian. 19.


Valentinianian. 14. There are thirteen of the *Securitas* to one of the *Gloria* type. All but one are struck on inadequate flans.

Theodosian. 44. Of these 31 are of the *Salus* type.

Joint reign of Arcadius and Honorius. 8. Five are of the "Three Emperors standing" type (13-11 mm.; av. wt. 1 to 1.3 gm.); two *Concordia Aug* (10 mm.; 0.75 gm.).

Joint reign of Honorius and Theodosius II. 4.

Probably c. A.D. 420-30. 8. All are of the late "Single Victory" type. Of the four which are not barbarous, one shows ending --- AVGG, one  with *obv.*

Dn Valentinianus p f Aug, one .

Probably c. A.D. 430-50. 30. Of these 21 were "No legend. Cross in wreath." The 4 Western coins of Valentinian III were all barbarous.

c. 450-? c. 500. 44.

Marcian. 7. All "Monogram" (0.65 grm.).

Leo. 35. Monogram, 10 (0.76 grm.), Lion, 5 (0.77 grm.), Emperor standing with (a) cross on globe, 12 (0.93 grm.), (b) with captive, 8 (0.9 grm.).

The coins of Marcian and Leo are fairly worn.

Zeno. 2. Monogram (0.84 grm.).

There are 30 of the "Copies G" class ranging from Constantine I to Theodosius.

Resembling these in so far as they are cast and very thin, but showing inferior skill in every respect, are eight others, including a barbarous imitation of Marcian's monogram.

A few appear to have unusual types:

Obv. Indecipherable. *Rev.* Palm (0.32 grm.); cf. Wroth, Pl. III, 35, 36.

Obv. Bust helmeted, dr. and cuir. r. *Rev.* Emperor standing facing, holding ? long cross and ? cross on globe. Cf. Sabatier, Leo, 16.

Obv. ? Bust l. *Rev.* Victory hurrying l., holding long ? cross. Cf. common *A* type, where, however, Victory is "standing".

Obv. Bust with traces of the name of ? Theodosius II. *Rev.* Emperor with his l. hand grasping the head of a captive. Cf. Wroth, Pl. III, 32.

Obv. Helmeted bust r., with traces of a short name. *Rev.* Nimbate Emperor standing facing, holding standard and cross on globe.

Indecipherable and unclassified. 130. These range from c. 6 to c. 12 mm., and seem to be mostly of the early or mid-fifth century. Only one seems to have been deliberately halved and only one—a fourth-century *AE* 3—quartered.

The two following hoards are of a special character and I have placed them together on the ground of their similar nature, though the few closely datable coins in each would place them a century apart.

5. ?c. A.D. 420.

Out of 127 five only are genuine coins, viz.:

Æ 3. *Gloria Romanorum* "Empress seated facing", of Eudoxia sen.

Æ 4. *Salus reipublice* $\frac{+ |}{\text{ANT}\Delta}$ $\frac{P |}{\text{AQS}}$. Emperors illegible.

Victoria Augg "Two Victories" $\overline{\text{R} \text{ [mark]}}$, of Valentinian II.

Vol X mult XX $\overline{\text{ALE}\Delta}$, of Arcadius.

These are all of normal size and weight and not much worn. With these were 122 small bronze discs of the thinness of paper for the most part, sinking in weight to half a grain (0.032 grm.) and averaging 0.12 grm. They seem to have been produced by punching from a thin sheet of metal. Slight irregularities of their surface may point to an imitation of a coin type, but none is recognizable and most of the discs seem to be quite blank. A very few are of a different class, being produced by casting and showing a definite though always unintelligible attempt at a type. The heaviest of these latter weighs 0.32 grm.

Nothing like the thin punched "coins" occurs in any of the other hoards described above, nor indeed in any hoard that I have seen, except that of which the description follows below.

6. ?c. 500.

This hoard resembles the last except in its greater numbers, here about 1,300. Again there are a few coins or rather, in this case, copies of coins to suggest a date:

(Obverse, unless otherwise stated, always a rude bust r., with unintelligible, if any, lettering.)

Rev. Cross in wreath. 5. One has *obv.*, apparently, a barbarous monogram. One, very barbarous, is of the very thin class. Two showing better workmanship are of "Copies G" class.

Rev. Salus reipublicae, much worn, of "Copies G" class.

Rev. Monogram. ? Marcian, 1, barbarous.

Anastasius. 1, similar to Wroth, Pl. IV, 14, 15, but slightly smaller.

Rev. IIII with N above. *Obv.* Bust l., palm-branch in front. It is Wroth's Pl. I, 17, 18 which he doubtfully assigns to Huneric (A.D. 477-84), while admitting a later date as a possibility.

As Anastasius reigned from A.D. 491 to 518, the end of the fifth century is the earliest date we can assign to the hoard.

All the remaining coins are of the same kind as those of Hoard 5. The average weight is 0.1 grm. Among them was a fragment of lead (9 × 14 mm.), obviously, I think, stamped to resemble a coin.

When Wroth wrote his *Coins of the Vandals* he had before him, I presume, little evidence except from specimens supposed to have come, and which probably did come, from Egypt. Their barbarous appearance naturally led him to think they were non-imperial, and their provenance, that they were African. But since he wrote, similar coins with "Single Victory", "Camp-gate", etc. as reverse type, and with the name or an attempt at the name of Honorius or Valentinian III on the obverse have characterized hoards found in Italy, Dalmatia, or Pannonia. They cannot then as a class be styled Vandalic. Dr. L. Cesano pointed this out in an article dealing with Italian hoards, which appeared in the *Riv. Ital. di Num.* for 1913.¹ Lately the Minturno hoard, published by Mr. Newell, proved to be almost half composed of Valentinian III's coins of this class.

So, too, with the Byzantine coins. Dr. Cesano would place these with Sabatier among imperial issues. They were found in great numbers in the Dalmatian hoard and there is no reason to call them Vandalic.

No doubt both these classes were imitated in Egypt. As I said above, the numerous "holed" specimens of Byzantine issues seem certainly local and I have elsewhere noted the Egyptian predilection for lead. But I think with Dr. Cesano that "Vandalic" is a misnomer.

¹ I may mention incidentally that in the same volume Signor Dattari gives an excellent illustration of a mould from which the coins attributed by me to Dr. Milne's "Copies G" class were made.

To the question "What are these coins? How do the units of this heterogeneous jumble of old and new, whole and fragmentary, stand in relation to one another"? no certain answer seems yet possible. Dr. Cesano takes the average weight of groups assorted by size in the various hoards and finds that in the time of Johannes weights of 3.54, 2.1, 1.63, 1.09-1 grm. are distinguishable; later, weights of 1.63, 1.09, 0.76, or perhaps only 1.63 and 0.76, marking different denominations. (The heavier weights would, of course, be those of older coins.)

We can, I think, be sure of this, that the use of the "coins", however obscure to us, was quite simple to the users, and I doubt whether anything like half the "coins" of a hoard could be recognized readily as belonging to one or other of these "denominations". Buyer and seller would hardly see eye to eye about those on the border-line. There was a coin called *denarius*. In 419 a pound of pork cost 50 *denarii*, and 4,000 *denarii* would buy just as many pounds of pork as a *solidus* of 389. Probably the *denarius* was the *Æ* 4 which settled down to a weight of little over a grammo. The obvious suggestion has been made that the obsolete and fragmentary coins were weighed—at first sight a cumbersome procedure, but every shop would have scales handy or they could be carried about and brought into action almost as easily as a fountain-pen or a spectacle-case.

J. W. E. PEARCE.

A NEW *AES* TYPE OF VALENTINIAN I IN THE MUSEUM AT BUDAPEST.



The remarkable coin illustrated above from a cast kindly sent me by Dr. Elemer Jónás, Keeper of Coins in the National Museum at Budapest, seems to be as unique in

the legend as in the symbolism of its reverse type. Its description is as follows :—

Obv. DN VALENTINI—ANVS PF AVG. Bust pearl-diademed, draped and cuirassed r.

Rev. PERPETVIT—AS IMPERII. Emperor standing r., holding shield inscribed with swastika-shaped cross; above, on the right, a hand reaching down from heaven. SIRM

All other bronze coins of Sirmium struck at the beginning of Valentinian I's reign have an *officina* letter A or B preceding the mint-name in the exergue. Here an unfilled space is left, suggesting to Dr. Jónás that this is a pattern-coin. Apparently no further stage was reached and Sirmium was content, with the rest of the Empire, to strike the common Æ types RESTITV-TOR REIP. GLORIA ROMANORVM, SECVRITAS—REIPVBLICAE and V-X vota-coins. The activity of the mint at this period ended before the accession of Gratian in August, 367.

The obverse of this coin shows the portrait normal at Sirmium for Valentinian I and Valens. The reverse, however, shows an entirely fresh treatment in the way in which the assurance of divine protection is conveyed to the Christian monarch. Victory under the banner of Christ had been promised to Constantine I in a vision and all Christian Emperors afterwards had applied the promise to themselves by placing the divine monogram or a cross upon the standard which they were represented as holding in their coinage. That we find it here for the first time upon a shield gains significance—perhaps not realized by the artist—from the gloomy picture drawn by Ammianus (XXVI. 5) of the enemies pressing upon the Empire from every quarter in the year of Valentinian's succession. If there is an unusual directness in the symbolism of the shield to the Empire's great need, this is seen no less in the manner in which the shield is conveyed—by a hand from heaven. This symbol, which was presently to become trite on the obverse of coins as the expression of the fact that the Emperor derived his position from Divine Providence, had so far been seen only on the posthumous coin of Constantine I in which it receives him ascending, Elijah-like, in a chariot to heaven. The coin of Vetrician II HOC SIGNO VICTOR ERIS with Victory crowning Emperor who holds the labarum is more allusive and less direct. The imagery on our present coin is a bold

innovation for the time of Valentinian I. The peculiar form given to the cross—that of a swastika—is unexampled on Roman coins. It is not, however, unknown in early Christian symbolism and is to be found, though rarely, in fourth-century paintings in the Catacombs at Rome, but only as a picturesque variety for the normal cross. There seems, therefore, little hope of finding in its use here an allusion to contemporary religious questions. Sirmium at the time of Valentinian's visit in July 364 had an Arian bishop, Germinius; but Valentinian, though himself Orthodox, followed in Church matters a policy of toleration and, even if there had already been a St. Ambrose here, would have been no Gratian in his hands. I can see nothing in the type beyond its obvious general appropriateness to the political situation of A.D. 364.

The nearest approach to the reverse legend seems to be the AETERNIT IMPERI of the House of Severus with type "Facing busts of members of the royal family" and the AETERNIT IMPER of Philip I and II with type "Sol walking l." The former suggests that the application is to the duration of the dynasty rather than to that of the Roman Empire. The PERPETVETAS of Gratian with type "Phoenix on globe" no doubt has the wider reference of the legend here, but the type is colourless. Why our coin with its clear assertion in combined type and legend, that the Empire for its continuance must rely on the protection of the Christians' God, passed no farther than the "pattern" stage, cannot be known. Perhaps it was too clear. There must still have been many who felt with the pagan Symmachus that only the old religion was *ablo imperii aeternitatem caelestibus fuleire praesidiis*.

J. W. E. PEARCE.

A HOARD OF ROMAN COINS FROM EAST HARNHAM, WILTS.

Through the courtesy of Mr. Frank Stevens, Contoller of the Salisbury, South Wilts, and Blackmore Museum, the writer has been able to examine a small hoard of 69 Roman coins (now in that museum) which were discovered at East Harnham, near Salisbury, in November 1876. The find was recorded by Dr. Blackmore (Coin Notebook, No. 1), by whom a MS. list of the coins was drawn up. A detailed account of the coins has already appeared in the *Wiltshire Archaeo-*

logical Magazine (vol. xlviii, pp. 48 ff.), but for the sake of convenience a list of them is given here also:—

Maximianus Herenlius	3
Galerius Maximianus	2
Maximinus Daza	6
Licinius I	7
Constantine I	49
Crispus	1
Uncertain	1
Total	<u>69</u>

This little deposit is of some interest, for it covers a period of years represented by comparatively few other British hoards. Comprising issues from the mints of London, Trèves, Lyons, Arles, and Ostia, it opens with 2 coins (*Æ* 2) of Galerius Maximianus, struck before A.D. 305. The issues of the succeeding years show the progressive reduction of the content of the *folles* and its ultimate eclipse by the new *Æ* 3 issues; it is also possible to trace clearly the rise of Constantine to supreme power, culminating in his temporary pact in A.D. 317 with Licinius I. It was thereby agreed, *inter alia*, that the sons of Constantine and Licinius should be regarded equally as Caesars; and one of the two latest coins in the hoard is an issue struck in the name of Crispus at the London mint shortly after the pact was made. The coins were probably buried towards the end of the year 317; they were enclosed in a pot, but this (as Dr. Blackmore recorded) was broken at the time of its discovery, the fragments being very "rotten", and no trace of it now remains.

C. H. V. SUTHERLAND.

A REPUBLICAN *DEXTANS* FOUND IN SOMERSET.

Through the kindness of Mr. W. A. Seaby, the Ashmolean Museum has recently been able to acquire a rare denomination of the Roman Republican coinage—a *dextans* of the Italian mint of "Luceria"—found somewhat surprisingly in Somerset. A comparison of this coin with the two *dextantes* of "Luceria" in the British Museum is here given, in order that the existing details of this scarce issue may be supplemented as fully as possible.

	Gm.	Mm.	Axis.	
1. Ashmolean Museum.	22.90 ¹	33.5	→	
2. British Museum.	27.86	33.0	↑	} Same <i>obv.</i> and <i>rev.</i> dies.
3. " " (= <i>B.M.C.</i> , <i>Rom. Rep.</i> , ii, p. 184, no. 169; Mattingly, <i>Roman Coins</i> , Pl. vi, 1).	12.05	23.0	↖	

The interest of the two British Museum coins—struck from the same dies but on different systems of weight—one sextantal and one uncial—is obvious. Grueber, when he wrote his paper, "The Coinage of Luceria",² was at the time unaware of the existence of bronze of "Luceria" struck on the uncial standard; but, in his great catalogue of Republican coins published four years later, he was able to include coin no. 3 above, as well as a *dextans* of Π(alio),³ as examples of the issue of a bronze series at local Italian mints after the adoption of the uncial standard in 217 B.C. It was possibly the very rarity of the denomination that caused the reluctance of the authorities of the mint of Luceria to exchange the dies used in striking the heavier *dextantes* for new ones more suited to the reduced size of the *flan*. Nor, indeed, when the standard was changed, were the old dies at all badly worn, as a glance at no. 3 below will show. The Ashmolean coin must, of course, have been struck before no. 2; possibly the dies from which it was produced immediately preceded those of nos. 2 and 3: they are certainly very much worn.

This Somerset *dextans* was found, not less than ten years ago, in the garden of the Old Rectory at Batcombe, 2½ miles north of Bruton, and passed recently into the hands of Mr. G. B. Coney, of Batcombe, from whom (through the collaboration of Mr. Seaby) it was acquired by the Ashmolean Museum. There appears to be no reason at all for doubting the story of the circumstances in which it was discovered. A certain suspicion has, of late years, attached to finds of pre-Imperial coins in the west of England, and in one or two cases this suspicion has been amply

¹ This weight would be greater but for the deep indentation on the surface of the reverse.

² *Corolla Numismatica* (1906), pp. 115 ff.; see p. 125.

³ *B.M.C.*, *Rom. Rep.*, ii, p. 203, no. 259.

justified.⁴ But it has lately been argued⁵ that the infiltration of pre-Imperial bronze into the West of England is neither very remarkable nor suspect. The British Museum



records include a number of cases of such coins having been found in the southern half of Britain. No one has ever doubted the authenticity of the finding of a Numidian *Æ*

⁴ See, for example, *V.C.H. Somerset*, i, p. 287 for a hoard of mixed Roman, Numidian, and Carthaginian coins, said to have been found at Bath, and traced eventually (*Num. Chron.*, 1907, p. 147) to a dealer in Bath.

⁵ *Num. Chron.*, 1937, pp. 124 ff.

coin at Carn Brea in Cornwall;⁶ this coin was issued in the latter half of the second century B.C. Two other finds of early bronze which have met with suspicion—a Roman *uncia* of circ. 230 B.C. from Exeter,⁷ and an *as* of circ. 100 B.C. from Marazion in Cornwall⁸—are, intrinsically, likely enough to be perfectly genuine. Of course, the importance of early bronze coins in Britain must not be exaggerated. Such isolated finds cannot be adduced as strong evidence either for close trading connexions at an early date between Southern England and the Continent or for a very busy and continuous sea-borne trade between Southern England and Mediterranean ports. Nothing was easier than for a few stray coins to enter the island so long as intercourse of any kind existed between Britain and Gaul, and so long as even a few ships made their way up from the Mediterranean to ports in Cornwall and Devon. In many cases such coins would arrive in Britain long years after their original date of issue; the present coin, for instance, is very greatly worn. All that we can safely say of these sporadic finds of early bronze coins in Britain is that they illustrate the readiness with which good bronze coins were accepted, in the south and south-west, as a means of supplementing the native currencies, which were chiefly of gold and silver. Moreover, we should almost certainly have been able to multiply the instances of such finds in Britain, if the Senate had not virtually ceased to produce any bronze coinage for the last half-century of the Republic.

C. II. V. SUTHERLAND.

⁶ *V.C.H. Cornwall*, Part 5 (Romano-British Supplement), p. 83.

⁷ *Num. Chron.*, 1907, p. 153.

⁸ *V.C.H. Cornwall*, Part 5 (Romano-British Supplement), p. 37.

VII.

THE HIERAPYTNA HOARD OF GREEK AND ROMAN COINS.

[SEE PLATE VI.]

EARLY in 1934 there appeared on the market a part of an unusually interesting hoard which had been found at the Cretan port of Gierapetra (the ancient Hierapytna).¹ It contained coins struck in many different parts of the ancient world, ranging from a cistophorus of Phrygian Apamea to eight denarii minted in Spain; but, with a few exceptions, they all fall under four headings: Cretan silver of the latest period, New Style tetradrachms of Athens, cistophori, and Roman Republican denarii;² the last-named made up more than half the total, and ranged in date from about the middle of the second century B.C. to c. 46 B.C.

This part of the hoard was examined and briefly

¹ My thanks are due to the Keeper of Coins in the British Museum, to Mr. H. Mattingly, and especially to Mr. E. S. G. Robinson, for permission to publish this hoard and for much help and information given to me while studying it; also to Mr. R. C. Lockett for allowing me to include a coin in his collection, and to the many other numismatists without whose help, direct or indirect, this article could not have been written.

² Republican denarii do not often appear in hoards found in Greece; for other examples see S. P. Noe, *Bibliography*², nos. 307, 462, and two finds from the Peiraeus, one published in *Num. Chron.*, 1927, pp. 287-8, the other unpublished. For information about the latter, which was very large and ran down to c. 2 B.C., I have to thank the Rev. E. A. Sydenham and Messrs. A. H. Baldwin & Sons.

listed by different persons in Athens and London during 1934; more than a year later, when many specimens had been sold, the remainder were examined at the British Museum, which retained those marked with an asterisk in the list below. According to one report, the whole hoard was about three times the size of this part and contained many more Roman denarii, mostly in very poor condition. The coins were all badly encrusted with oxidization, and many were broken; but those which reached the Museum have been cleaned, and, where possible, mended.

The catalogue which follows is based on the specimens examined at the B.M., supplemented by lists supplied by various dealers who handled the coins. Some references to the Schlessinger sale catalogue of 4 February 1935 have been added, as this is said to have included specimens from the find.

The Cretan coins are given first. It will be seen that, apart from three worn staters of Aeginetic weight,³ and some Gortyuan drachms of the early second century n.c.,⁴ they all fall into the latest period. Their condition is shown, where possible, by the signs I, II, or III (I denoting good): these are put in round brackets when the coin in question has not been examined by me. I have added the weights of the few complete specimens, including one that has been broken and mended. Sv. refers to Svoronos, *Numismatique de la Crète ancienne*.

³ Nos. 19, 50, 51.

⁴ Nos. 20-3.

Cnossus.

1-9. Tetradrachms (head of Apollo; circular labyrinth). Sv., p. 77, no. 96, Pl. VI. 18.
 3 seen at B.M.; all from same obv., and 2 from same rev. die as Sv., Pl. VI. 18;
 all broken.

I/II

10. Tetradrachm (head of Zeus; square labyrinth). Sv., p. 77, no. 98, Pl. VI. 21.
 Seen at B.M.; same obv. die as Sv., Pl. VI. 21; broken.

I/II

11. Tetradrachm (Athenian types). Sv., p. 88, no. 174, Pl. VIII. 1.
 Seen at B.M.; same dies as Sv., Pl. VIII. 1; broken. [Pl. VI.]

I/II

Cydonia.

12-15. Tetradrachms (head of Artemis; Artemis). Sv., p. 107, no. 59, Pl. X. 1.
 1 seen at B.M.; same dies as Sv., Pl. X. 1; broken.

I/II

16-18. Similar, but rev. legend as Sv., no. 60.

I

1 seen at B.M.; same obv. die as Sv., Pl. X. 1; broken.

Gortyna.

19. Stater (Europa in tree; bull). Sv., p. 170, no. 100, Pl. XV. 15.

(III)

20-1. Drachms (head of Zeus; seated Apollo). Sv., p. 178, nos. 167, 169, Pl. XVI. 18, 19.

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22-3. Drachms (head of Zeus; standing warrior). Sv., p. 176, nos. 147, 152, Pl. XVI. 11, 12.

—

24-6. Tetradrachms (Athenian types). Sv., p. 179, nos. 181 and 184, Pl. XVI. 23 and 25.

(I/II)

27. Tetradrachm (head of "Roma"; Artemis Ephesia). Sv., p. 181, no. 190, Pl. XVI. 29.
 In the R. C. Lockett coll. (probably the specimen from the hoard mentioned in one
 list). [Pl. VI.]

I

Hierapyfna.

- 28-31. Tetradrachms (turreted female head; palm and eagle). Sv., p. 192, no. 31, Pl. XVII. 11.
- 32-3. Similar, as Sv., p. 191, no. 25, Pl. XVII. 13.
34. Similar, as Sv., p. 190, no. 17, Pl. XVII. 12, but magistrate's name reads $\Lambda\text{I}[\text{BY}\Sigma]$ 1935, no. 1052.)
- *35. Didrachm (same types). Sv., p. 189, no. 8, Pl. XVII. 18.
In B.M.; same dies as Sv., Pl. XVII. 18; broken and mended. Wt. 7.15 grm.
36. Similar, as Sv., p. 189, no. 10.
- 37-8. Similar, as Sv., p. 189, no. 11, Pl. XVII. 17. (Cf. Schlessinger Cat., 1935, no. 1054.)
- *39. Similar, as Sv., p. 190, no. 16; rough work; on rev. $[\text{K}]\text{Y}\Delta|\text{AN}$ downwards on r., TO on l.
In B.M. Wt. 6.99 grm. [Pl. VI.]
40. Similar; variety not in Sv.; on rev., $\text{IEPA}\Pi\text{Y}\text{T}$ below, and, barely legible, $[\Lambda]\text{I}[\text{BY}\Sigma]$ upwards on r. (Cf. no. 34 above, tetradrachm with same names.)
Seen at B.M.; broken.
- *41-2. Similar, as Sv., p. 190, no. 19.
Both seen at B.M.; one kept; both broken.
(Cf. Schlessinger Cat., 1935, no. 1053; I was also shown an almost unworn specimen of this type in Candia in 1934, which was said to have come from the hoard.)
- *43. Similar, as Sv., p. 190, no. 22; on rev., legend is MENE
 ΣOENH on both this and the
Berlin specimen, and not as printed by Svoronos.
In B.M. Wt. 7.17 grm. [Pl. VI.]

44. Similar, as Sv., p. 191, no. 26, Pl. XVII. 14. —
 45. Similar, as Sv., p. 191, no. 28, Pl. XVII. 15. —
 46. Similar, as Sv., p. 191, no. 29; Schlessinger Cat., 1935, no. 1055. —
 47. Similar, worn and illegible. —
 48. Drachm, as Sv., p. 189, no. 14, Pl. XVII. 19. —
 *49. Similar, as Sv., p. 191, no. 27, Pl. XVII. 16. I/II
 In B.M. Wt. 3.41 grm. [Pl. VI.]

Prionus.

50. Stater (Hygieia enthroned; Poseidon). Sv., p. 295, no. 3, Pl. XXVIII. 22. —

Rhaneus.

51. Stater (Poseidon and horse; trident). Sv., p. 304, no. 2, Pl. XXIX. 7. —

Only a handful of the other Greek coins reached the British Museum; one of the lists has preserved details of about half the Athenian pieces, but our information about the rest is scanty.

Athens.

- 52-102. About 50 tetradrachms and 1 drachm of the New Style series. The following 27 tetradrachms and 1 drachm were identified.

- 52-4. Illegible.

Monogram series.

Series with two magistrates' names (early).

55. ΚΤΗΣΙ—ΕΥΜΑ

(III)

Series with three magistrates' names (the third not recorded).

56-7. ΘΕΜΙΣΤΟΚΛΗΣ—ΘΕΟΠΟΜΠΟΣ

(III)

58-60. ΘΕΟΔΩΤΟΣ—ΚΛΕΟΦΑΝΗΣ

—

61-2. ΗΡΑΚΛΕΙΔΗΣ—ΕΥΚΛΗΣ

1 seen at B.M.; third name illegible; broken.

II/III

63-6. ΙΚΕΣΙΟΣ—ΑΣΚΛΗΠΙΑΔΗΣ

(II/III)

67. ΑΡΙΣΤΙΩΝ—ΦΙΛΩΝ

(II/III)

68-9. ΔΗΜΕΑΣ—ΕΡΜΟΚΛΗΣ

(I/II?)

*70. ΜΗΤΡΟΔΩΡΟΣ—ΔΗΜΟΣΘΕΝΗΣ. Drachm.

In B.M.

II/III

Series with two magistrates' names (later).

	On amphora	Below
71. ΑΠΕΛΛΙΚΩΝ—ΑΡΙΣΤΟΤΕΛΗΣ	H	?
72-3. ΔΙΟΦΑΝΤΟΣ—ΑΙΣΧΙΝΗΣ	{(72) A {(73) M	?
74. ΕΠΙΓΕΝΗΣ—ΞΕΝΩΝ	B on A	Σ?
75. ΕΥΜΗΛΟΣ—ΘΕΟΞΕΝΙΔΗΣ	?	?
76. ΚΛΕΟΦΑΝΗΣ—ΕΠΙΘΕΤΗΣ	E	ΕΡ
77. ΜΕΝΕΔΗΜΟΣ—ΤΙΜΟΚΡΑΤΗΣ	A	ΔΙ
78. ΜΕΝΩΡ—ΜΟΣΧΙΩΝ	?	ΣΩ
79. ΝΕΣΤΩΡ—ΜΝΑΣΕΑΣ	?	?
		?

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I/II

Seen at B.M.; broken.

Nos. 71-7 are now in a private collection in Athens; nos. 75 and 76 are the best preserved, but we are told that none of this series were at all badly worn. It is said that most of the remaining specimens of Athens belonged to this period, but no details are available.

Cistophori.

103-62. About 60 cistophori, said to have been mostly specimens of Pergamum, with Roman proconsuls' names; but the only two of which we have details were of Apamea and Tralles:—

Apamea.

103. Cistophorus with name of Appius Claudius Pulcher, as *B.M.C. Phrygia*, p. 73, no. 30.

Tralles.

*104. Cistophorus with name of T. Ampius; on rev., T. AMPI · T · F · | PROCOS, and below, magistrate's name ΠΥΘΑΓΟΡΑΣ; between serpents, eagle on tripod; symbol on r. broken away.

In B.M.; broken.

I/II

Asiatic League.

*163. Drachm issued at Elis; on rev., FA on l., Σ on r. Clerk, p. 16, no. 259.

In B.M.

II/III

The following 200 Roman Republican denarii were all examined at the British Museum; we have no details of any other specimens from the hoard. References are to H. A. Grueber's British Museum Catalogue, volume, page, and number.

164. Q. MARC. LIBO i. 94. 700 (broken)

165. C. SCR. i. 98. 727

166. NAT. i. 101. 756

II

II

II

167. NATTA	i. 112. 844 (plated)	II
168. No name	ii. 242. 428	II/III
169. C. RENI	i. 121. 885	III
170. SEX. POM. FOSTLVS	i. 131. 926	II/III
171. CN. LVCR. TRIO	i. 133. 931 [Pl. VI.]	III
172. M. BAEBI. Q. F. TAMPIL.	i. 133. 935	III
173. AV. RVF.	ii. 246. 446	III
174. C. PLVTTI	ii. 248. 454	III
175-6. Q. MINV. RVF.	ii. 250. 464	II
177. P. CALP.	i. 140. 968	II
178. C. CASSI	i. 153. 1032 (broken)	II/III
179. T. Q.	i. 154. 1038 (plated)	II?
180. No name	i. 155. 1044	III
181. M. CALID : Q. MET : CN. FL.	ii. 255. 474	II
182-3. Q. CVRT : M. SILA.	ii. 257. 482	II/III and III
184. Q. FABII. LABEO	ii. 264. 494 (broken)	II/III
185. "	ii. 265. 497	III
186. M. TVLLI	ii. 266. 502	II/III
187. M. SERGI. SILVS	ii. 269. 512	II
188. M. OPEIMI	i. 173. 1137	III
189. TI. VET. B.	ii. 281. 550	II/III
190. M. FOVRI. L. F. PHILI	ii. 283. 555 [Pl. VI.]	II/III
191. L. POMPONI. CN. F.	i. 186. 1191	II/III
192. C. MALLE. C. F.	i. 187. 1194	III
193. C. PVLCHER	i. 198. 1298	III

194. T. MAL: AP. CL. Q. VR.	i. 200. 1293	I/II
195. C. SVLPICI. C. F.	i. 203. 1320	II
196. C. FONT.	ii. 292. 597	II/III
197. CN. BLASIO CN. F.	ii. 295. 621	III
198. " "	ii. 296. 631	II/III
*199. L. SATVRN.	i. 217, cp. 1503, on rev. π	II
200. " "	i. 217. 1506 (broken)	II/III
201. Q. LVTATI. CERCO	ii. 297. 636	II
202. L. MEMMI	ii. 299. 643	II
203. AV. AQVIL.	ii. 300. 645	II
204-7. Q. THERM. M. F.	ii. 302. 653 (one a fragment)	I/II (1 specimen) and II (3)
208. P. SERVILI M. F. RVLLI	i. 230. 1672	I/II
*209. LENT. MAR. F.	i. 234, cp. 1709, but M̄ on obv. and rev.; broken.	II
210. C. MALL.	ii. 306. 694	II
211. D. SILANVS L. F.	i. 245. 1776	II
212. " "	i. 247. 1833 (broken)	I/II
*213. L. PISO L. F. FRVGI	i. 263, cp. 1984, but C and G on obv., XXXVIII on rev. below.	II
*214. " "	i. 268, cp. 2043, but X and G on obv., F on rev.	II
*215. " "	Similar, but T and F on obv., uncertain letter on rev.	II
216. " "	Similar, small fragment.	I ?
217-18. Q. TITI	i. 286. 2220	II and II/III
219-21 " "	i. 287. 2225	I/II

*222. C. VIBIVS C. F. PANSA	i. 290, cp. 2244, but on obv. bow and arrow crossed.	II/III
223-7. "	i. 292. 2282 (two broken)	II (2) and II/III (3)
228-9. L. TITVRI L. F. SABIN.	i. 297. 2822 (one broken)	II
230. "	i. 298. 2828	II/III
*231. "	i. 299, cp. 2353, but M on rev.	II
232. C. MARCI. CENSO.	i. 302. 2871	II
233-5. L. C. MEMIES L. F. GAL.	i. 308. 2433	II (1) and II/III (2)
236-7. CN. LENTVL.	i. 309. 2440	II
238. L. RVBRI. DOSSEN.	i. 311. 2452	II/III
239. C. LICINIVS L. F. MACER	i. 320. 2467 (broken)	II
240. "	Simular, but plated.	II/III?
241-2. AV. FONTEI C. F.	i. 323. 2479 (one broken)	I/II and II
*243. L. IVLI. BVRSIO	i. 324, cp. 2485, but symbol on obv., pellet.	II
*244. "	i. 324, cp. 2485, but symbol on obv., caps of Dioscuri.	II
245. P. FOVRIVS CRASSIPES	i. 332. 2604 (broken)	II/III
246. No name	i. 335. 2622	II/III
247. L. CENSORIN: P. CREPVSI: C. LIMETAN.	i. 336. 2636	I/II
*248. "	i. 337, cp. 2643, but LXXV on rev. [Pl. VI.]	I/II
249-50. L. CENSOR.	i. 338. 2657	I/II
251. P. CREPVSI	i. 341. 2684	I/II
252. Q. ANTO. BALB.	i. 347. 2765	II

253. C. NORBANVS	i. 349. 2798	I/II
*254. "	i. 350, cp. 2814, but obv. no. is CLXIII.	I
255-7. A. POST. A. F. S. N. ALBIN.	i. 351. 2836 [Pl. VI.]	II
258. C. MARI. C. F. CAPIT.	i. 354. 2850	II
*259. "	i. 356, cp. 2885, but symbol on obv., head of hound; no. on obv. and rev., CXXXV[II]; broken.	I
*260. C. NAE. BALB.	i. 367, cp. 2920, but M under chin.	I
261. "	i. 367. 2928	I
262. "	i. 368. 2933	I/II
263. "	i. 368. 2948 or similar (LXXX[... on rev.)	I
264. "	Similar; broken.	II
265. L. PAPI	i. 372. 2983	II
266. "	i. 380. 3094	I/II
*267. TI. CLAVD. TI. F. AP. N.	i. 382, cp. 3111, but on rev. CXXXXII	I/II
268. "	i. 383. 3116	II
269. Q. C. M. P.	ii. 357. 43	II
270-1. "	ii. 357. 47	I
272. L. PROCILI. F.	i. 387. 3150	I
273. M. VOLTEI. M. F.	i. 388. 3154 (broken)	I
*274. "	i. 389, cp. 3160, thunderbolt on rev.	I
275. "	i. 391. 3188	I
276. P. SATRIENVS	i. 392. 3208	II
277-8. L. RVTILI. FLAC.	i. 395. 3242	II
279. "	Similar, fragment of a plated piece.	II?

280. L. RVSTI	i. 398. 3271	I
281. L. FARSVLEI. MENSOR	i. 403. 3306	I
282. AV. AQVIL. AV. F. AV. N.	i. 416. 3364 (small fragment)	I/II?
283-6. GN. LEN.	ii. 358. 52	I (2), I/II and II
287. "	ii. 359. 57	I
288-95. PAVLLVS LEPIDVS	i. 418. 3373 (four broken)	I (4) and I/II (4)
296-9. LIBO	i. 419. 3377 (one broken)	I (3) and I/II
300. C. HOSIDI. C. F. GETA	i. 420. 3386 (broken)	I
301-2. "	i. 421. 3388	I and I/II
303. L. ROSCI. FABATI	i. 428. 3456	I
304. P. GALB.	i. 433. 3517	I
305. M. PLAETORIVS M. F. CESTIANVS	i. 438. 3557	I/II
306. "	i. 439. 3572	I
307-8. "	i. 441. 3596	I and I/II
309. Q. POMPONI. MVSA	i. 443. 3610	I/II
310. "	i. 443. 3613 [Pl. VI.]	I/II
311. "	i. 444. 3617	I/II
312. "	Similar (fragment).	II?
*313. C. PISO L. F. FRVGI	i. 453, ep. 3676, but on obv. Q, on rev. ear of corn.	I
*314. "	Similar, but on obv. XXI, on rev. anchor.	I
*315. "	Similar, but on obv. Δ, rev. symbol off flan.	I
316-17. SVFENAS	i. 470. 3820	I and I/II

318-19. CALDVS	i. 474. 3833	I/II
320. "	i. 475. 3837	I/II
321. P. YPSAE.	i. 476. 3843	I/II
322. "	i. 477. 3845	I/II
323. "	i. 477. 3849	I
324-5. P. FONTEIVS P. F. CAPITO	i. 478. 3851	I/II
326-8. "	i. 479. 3856 (one broken)	I (2) and I/II
329-31. BRVTVS	i. 479. 3861	I
332. "	i. 480. 3864	I
333. Q. CASSIVS	i. 482. 3871	I/II
334-9. M. SCAVR: P. HYPSEAEVS	i. 484. 3878 (one a fragment)	I (4) and I/II
340-3. Q. POMPEI. RVF.	i. 485. 3885	I (1), I/II (2), and II
344-50. PHILIPPVS	i. 485. 3890	I (5) and I/II (2)
351-2. L. FVRI CN. F. BROCCHI	i. 486. 3896 (one broken)	I and I/II
353. P. CRASSVS M. F.	i. 487. 3901	I
354. SER. SVLP.	i. 488. 3907 (broken)	I
355-6. A. PLAVTIVS	i. 490. 3916	I
357. CN. PLANCIVS	i. 491. 3920	I
358. L. VINICI	i. 492. 3923	I
359. MESSAL. F.	i. 493. 3927	I
360. LONGIN.	i. 494. 3929	I
361. AV. ACILIVS	i. 497. 3944	I
362. LENT: MAR.	ii. 558. 3 (broken) [Pl. VI.]	I
363. AV. CORDIVS RVFVS	i. 523. 4037	I

? (badly corroded)

It is easy to suggest an occasion for the burial of the hoard. Only two years after the striking of the latest denarius, the whole Roman world was involved in civil war, and Crete did not escape. In the summer of 44 the island had been assigned to Brutus as his province for the following year. But during that autumn Antony, who knew its value as a recruiting ground, promulgated a decree, which he said he had found among Caesar's papers, granting remission of taxes to the chief cities, and promising that after the governorship of Brutus it should cease to be a province.⁵ As the governorship had not been assigned to Brutus till after Caesar's death, Cicero had no difficulty in showing that this was a forgery;⁶ but it had apparently served its purpose, and Crete was won over to Antony's side. When Brutus was collecting his forces in the East, he saw no prospect of obtaining help there, and went elsewhere.⁷ Some time later, however, the island was recovered for him by a force under an officer named Lepidus, as we learn from a chance phrase in Appian;⁸ this is the only occasion during the war when fighting seems to have taken place there, for not long afterwards Crete came under Antony's control again as a result of the victory of Philippi. The burial of the

⁵ Cic., *Phil.*, ii. 38. 97; xi. 12. 27; Dio Cass., xli. 23. 3.

⁶ *Phil.*, ii, *ibid.*; cf. also v. 5. 13; viii. 9. 27, on Cydas of Gortyna, one of Antony's agents in Crete, who is perhaps the ΚΥΔΑΣ ΚΡΗΤΑΡΧΑΣ of the Cretan cistophorus (Imhoof, *Monnaies grecques*, p. 210) and of an inscription (Collitz-Bechtel, *G.D.I.* 5031).

⁷ Dio Cass., xlvii. 21. 1.

⁸ Appian, *Bell. Civ.*, v. 1. 2. The date is not clear, but may have been shortly before Philippi. The identity of Lepidus is a disputed point, but need not concern us here. For a rather different interpretation see Paribeni in *Diz. Epigr.*, ii. 2. 1265 (s.v. Crete).

hoard may therefore be placed between 44 and 42 B.C., and should perhaps be connected with the expedition of Lepidus.

A word may be added here on the latest denarii in the find. It may seem surprising that whereas it includes over thirty specimens struck between 59 and 49 B.C.,⁹ there is only one which falls between 48 and the date of burial. There is no need to suppose that these denarii took several years to reach Crete: it is more probable that a large proportion of them had been brought back to the island by men who had fought for Pompey at Pharsalus in 48 B.C.; for his forces included not only native Cretan archers, but also a legion composed of veterans who had recently been settled in Crete and Macedonia.¹⁰ This would sufficiently explain the scarcity of denarii struck after 48 B.C.; for Roman coins are more likely to have reached the island in the hands of the returning veterans and mercenaries than in the course of trade.

The hoard throws a good deal of light on the dating and interpretation of the various series of late Cretan tetradrachms which it contains.¹¹ It will be seen, for instance, that their average condition is better than that of the denarii struck before 100 B.C., and seems to correspond most closely to those of c. 90-70 B.C. Similar evidence of a late date may be obtained by comparing them with the New Style tetradrachms of Athens; for it appears that nearly all the second-

⁹ Nos. 329-62 (following the dates given in *B.M.C.*).

¹⁰ Caesar, *Bell. Civ.*, iii. 4. 1-3.

¹¹ i.e. all the Cretan coins except nos. 19-23 and 50-1; the Hierapytnian series of course contains didrachms and drachms as well as tetradrachms, but all the other mints issued the tetradrachms alone.

century Athenian pieces of whose condition we have any record were more worn than the Cretan tetradrachms. The only exceptions are the two specimens bearing the names of Demeas and Hermoeles, which are known to have been struck only a few years before 100 B.C.;¹² their condition was rather ambiguously described as "presquesatisfaisant", and may have been as good as that of the most worn Cretan tetradrachms. It follows that most, if not all, of these Cretan series should probably be dated between c. 110 B.C. and the Roman invasion of 68 B.C.

The problems which this conclusion raises in connexion with the Cretan pieces of Athenian type will be considered later; the remaining issues, two of Cnossus¹³ and one each of Cydonia¹⁴ and Hierapytna,¹⁵ need not be discussed individually; but in support of the proposed dating it may be noted, first, that the Cnossian series with a head of Zeus on the obverse has long been known to belong to this period, as two specimens are restruck on coins of Antiochus IX (114-93 B.C.);¹⁶ and secondly, that Hierapytnian and Cydonian coins of these series, found in another Cretan hoard, which was buried some years after 68 B.C., were again in good condition.¹⁷

But this dating implies a revival of coinage in Crete which calls for some comment. None of these three cities had struck much silver during the previous

¹² This is the last of the series with three magistrates' names: cf. M. L. Kambanis in *B.C.H.*, lviii (1934), pp. 118 sqq.

¹³ Nos. 1-9 (with an Apollo head), and no. 10 (with a Zeus head).

¹⁴ Nos. 12-18.

¹⁵ Nos. 28-49.

¹⁶ *Sv.*, p. 78, no. 99.

¹⁷ *Z.f. N.*, xxi (1898), pp. 321-2; the hoard is discussed below, p. 151. For Cydonia, see also *infra*, p. 154, footnote 41.

century, and the abundance of the series which they now issued suggests a great increase in their prosperity. This is confirmed by recent excavations at Amnisus, one of the harbours of Cnossus, which have revealed many signs of its wealth at this period, and the explanation put forward by the excavator¹⁸ is no doubt correct: it was the growth of piracy that had made these Cretan ports so prosperous.

The Cretans were no longer the chief pirates in the Mediterranean¹⁹ (the Cilicians had by now robbed them of that position); but there were, no doubt, certain cities in the island which allowed their harbours to be used by the corsairs, and, like Side in Pamphylia,²⁰ profited greatly by doing so. How much booty the Cilicians obtained through their co-operation may be judged from the nickname they gave to the Cretan waters, "the golden sea";²¹ and the Cretans, themselves were accused of taking a share in their exploits.²²

Though no ancient author tells us which cities were guilty of such practices, it is possible to guess their identity. In 68 B.C. Crete was divided into an anti-Roman and a pro-Roman group; the former, led by Cnossus, must have included the other five cities which resisted Metellus, namely Cydonia, Elentherna, Hiera-

¹⁸ Dr. S. Marinatos in *Arch. Anz.*, 1936, 215.

¹⁹ On piracy at this time see H. A. Ormerod, *Piracy in the Ancient World*, pp. 190 sqq.; E. Ziebarth, *Serraub und Sechandei*, pp. 31-48.

²⁰ Strabo, xiv. 3. 2.

²¹ Florus, iii. 6. The date is doubtful; Ormerod (*op. cit.*, p. 206, note 2) suggests the period before the Mithridatic Wars; Ziebarth (*op. cit.*, p. 38) that before 78 B.C.

²² Appian, *Sic.*, vi; Diodorus Siculus, 40. 1. 3; Plutarch, *Pompey*, 29.

pytna, Lappa, and Lyttus: the latter was headed by Gortyna, the inveterate enemy of Cnossus, and may have included Polyrrhenium.²³ The cities which helped the pirates should probably be sought among the coastal towns of the anti-Roman group, namely Cnossus (with its two ports), Cydonia, and Hierapytna, the very three which issued the coins under consideration: and it will be noted that no comparable series was struck by the pro-Roman Gortynians, who had perhaps refused to help the Cilicians.²⁴ Finally, we may observe that the greatest activity of the pirates falls between c. 100 B.C. and their final defeat by Pompey in 67 B.C., and therefore coincides with the date suggested for the coins.

The series on the Athenian model, which was issued by seven Cretan cities,²⁵ calls for a more detailed discussion, since it has usually been considered to fall much earlier than the date suggested by the hoard. Beulé proposed to connect it with the alliance of c. 200 B.C. between Athens and the Cretans²⁶; Head, who rightly preferred to explain the adoption of

²³ Diodorus Siculus, *ibid.*; Dio Cass., fr. 111; xxxvi. 17-19; Velleius, ii. 34; Appian, *Sic.*, vi; Livy, *Epit.*, 98-9; Florus, iii. 7; Phlegon, fr. 12. The position of Gortyna is shown by the tetradrachm of Metellus; that of Polyrrhenium by the inscription on the base of a statue of him (*Rev. Arch.*, 1867, p. 418; *Sv.*, p. 276).

²⁴ This would help to explain the seemingly contradictory statements made by ancient authorities about Cretan piracy at this time; for, as against the evidence cited above, a passage in Strabo (x. 4. 9) suggests that in some cases Cretan cities, so far from helping the Cilicians, had actually been attacked by them.

²⁵ Only the mints of Cnossus and Gortyna were represented in the hoard; nos. 11, 24-6. One list mentioned another specimen (five in all), but did not record the mints of any of them; so this piece could not be included in the catalogue.

²⁶ *Monnaies d'Athènes*, pp. 90 sqq.

Athenian types on commercial rather than on political grounds, suggested a date early in the second century;²⁷ and more recently Sir George Macdonald has pointed out the federal nature of the series and connected it with the first appearance of the Cretan Koinon c. 220 B.C.²⁸ A few numismatists have advocated a later dating; thus electrotypes of the series exhibited in the British Museum are now labelled c. 125 B.C.; but Svoronos seems to be the only one who has hit on the right period, for in his catalogue he places the Knossian specimen²⁹ later than the two tetradrachms which are restruck on coins of Antiochus IX (114-95 B.C.),³⁰ thus implying a date in the first century B.C.

This conclusion is confirmed both by the present find, which contained five specimens, all said to be in tolerably good condition, and by a second hoard, or part of a hoard, published by Dressel,³¹ which furnishes a close parallel to the Cretan section of the Hierapytna find. The latest coin in it was one of the tetradrachms struck by Metellus at Gortyna c. 68-67 B.C.;³² as this is a little worn, the hoard must have been buried some years later. Of the four specimens of Athenian type

²⁷ *B.M. Guide* (ed. 3), pp. 98-9.

²⁸ "The Silver Coinage of Crete" (*Proc. Brit. Acad.*, ix), p. 14 sq. Though so early a date seems impossible, it is not unlikely that the series was organized by the Koinon, which appears as late as the first century B.C.: see M. Van der Mijnsbrugge, *The Cretan Koinon*, pp. 71-2.

²⁹ p. 88, no. 174, 17. VIII. 1.

³⁰ *Ibid.*, p. 78, no. 99. Compare also the position given to this series in the issues of Cydonia and Hierapytna.

³¹ *Z. f. N.*, xxi (1898), pp. 321-2; cf. p. 148 *supra*.

³² Now in the B.M. (pres. in 1905): Hill, *Historical Greek Coins*, p. 165, no. 97. Identified by a cast made at Berlin when the hoard was shown there in 1898.

which it contained, two are in good condition,³³ while the other two,³⁴ though less good, are not much more worn than the tetradrachm of Metellus. Some other coins of the same type, which (though not recorded by Dressel) may well have come from another part of this find, are in similar condition.³⁵

It remains to explain why the Athenian types should have been copied in Crete at this period and why seven cities united to do so. As Head saw, it is unnecessary to assume any political connexion with Athens. It was a common practice for Cretan mints to issue imitations³⁶ of any foreign money that commanded a ready circulation in the island, and the present instance need only imply that Athenian New Style tetradrachms were current there, a fact sufficiently proved by the presence of fifty in our hoard.³⁷

³³ The first, of Polyrhenium (also cast at Berlin in 1898), is now in the Newell coll.: *Amer. Journ. Num.*, 1914, p. 67, no. 23, Pl. IX. 23; the second, of Gortyna, is in Athens (1903-4, KB' 1).

³⁴ Berlin 496/1899; Dressel in *Z. f. N.*, xxiv (1904), p. 70, Pl. III. 9 (a specimen of Cydonia): and Hirsch Cat., xxix. 588 (a second specimen of Gortyna).

³⁵ e.g. three B.M. specimens (of Gortyna, Polyrhenium, and Priansus) bought in 1898 (*Num. Chron.*, 1899, pp. 93-4, nos. 10-12, Pl. VII. 6 and 7), and a Berlin specimen of Gortyna (ex Loebbecke; *Svoronos, Trésor*, Pl. 113. 4) which had originally been shown and cast at Berlin in 1897, before being cleaned (weight then, 16.48 grm., now 15.61); there is also at Berlin a cast of a specimen of Lappa, in good condition, with a note in Imhoof's hand quoting a Greek dealer's statement that it and two others had been found in a hoard about 1897, and suggesting that this was another part of the find published by Dressel.

³⁶ It is unnecessary to give a detailed list of these; they range from the early Pseudaeginetica (*Num. Chron.*, 1928, pp. 172 sqq.) to the cistophorus of the first cent. B.C. (Sv., p. 334, no. 1).

³⁷ There are also two small hoards of these coins in the Candia collection: the first (Noc, *Bibliography*², no. 282) contains four of the three-magistrate and nine of the two-magistrate group; the

But there was a special reason for issuing imitations of them at this time. The Athenian mint, after a period of great activity in the latter part of the second century, had been forced to close down just before 100 B.C. by a slave revolt;³⁸ and when minting was resumed, it was apparently on a far smaller scale than before.³⁹ As a result of this, there may already have been a scarcity of these coins, when the supply was again cut off in 87 B.C., owing to the siege of Athens by Sulla, and the shortage became more acute. Such a situation might well lead to the minting of imitations: a very similar position had arisen during and after the Peloponnesian War, when the supply of Attic silver to Syria and Egypt had been cut off in the same way, and local copies had been issued to take their place.⁴⁰

But there is also historical evidence which suggests that the series was struck soon after 87 B.C. Before the outbreak of war with Rome in 88, Mithridates had

second, unpublished, three of the monogram and four of the early two-magistrate group. All the Heracleion (Candia) specimens illustrated in Svoronos, *Treasure*, come from these hoards.

³⁸ On the date of this see Ferguson, *Hellenistic Athens*, p. 427 and note: he suggests 103-102 B.C. Cf. also Svoronos, *J.I.A.N.*, xvii (1915), pp. 60 sqq.

³⁹ Contrast the abundant series of Xenocles-Harmoxenos, the first of the group with two magistrates' names, which breaks off in the seventh month of its third year (owing to the slave revolt?), with the slightly later series of Demeas-Kallikratides, which "fait partie d'un groupe où les ateliers monétaires marchaient au ralenti" (M. L. Kambanis, *B.C.H.*, lviii (1934), p. 125); for the former series five workshops (or mines) were working in one year, as attested by the letters under the amphora; for the latter, whose date falls before 88 B.C., only one (Kambanis, *loc. cit.*; cf. Svoronos, *J.I.A.N.*, xvii (1915), p. 66).

⁴⁰ See E. S. G. Robinson on the coins from Al Mina, *Num. Chron.*, 1937, pp. 182 sqq., specially pp. 188-9.

tried to obtain help from Crete. He did not succeed,⁴¹ though she was at first inclined to favour the Pontic side. But in the winter of 87-86 B.C. Lucullus, who had been sent to collect a fleet in the East, touched at the island and won its support for Rome.⁴² It may be suggested that the leading cities in Crete began to strike these coins after coming to terms with Lucullus, and perhaps from silver supplied by him.

Two points seem to support this view. One is the use of Athenian types, which Lucullus himself had chosen for the uninscribed tetradrachms that he struck in the Peloponnese in 87 B.C., just before coming to Crete.⁴³ The other is the political position which the issue seems to reflect. At this time Cnossus had been closely connected with the kings of Pontus for nearly fifty years, first through Dorylaeus Tacticus, the general of Mithridates IV, who had settled in the city and led it to victory over Gortyna, and then through his nephew Dorylaeus, the war minister of Mithridates the Great.⁴⁴ Consequently, though Lucullus may have won her support temporarily, Cnossus would probably have been the first Cretan city to turn back to Mithridates. On the other hand, her enemy Gortyna was

⁴¹ Sallust, *Histories*, iv. 69. 10, 12. The Cretans did not openly help Mithridates till the war of 74 B.C. (see specially Memnon, 43 and 48; note also the appearance of the star and crescent, a Pontic badge, on late bronze of Cydonia, Sv., p. 107, no. 62; p. 110, nos. 80-6. The first of these bears the same magistrate's name, Pasion, as the late tetradrachms, nos. 12-18 of the hoard).

⁴² Plutarch, *Lucullus*, 2: Κρήτην κατάρως ᾤκειώσατο.

⁴³ For this identification of the Λουκούλλειον νόμισμα of Plutarch, *Lucullus*, 2, see the appendix.

⁴⁴ Strabo, x. 4. 10; xii. 3. 33. The connexion seems to have lasted till the treachery and downfall of Dorylaeus the younger, c. 72-71 B.C.

probably as staunchly pro-Roman in 86 B.C. as she was in the invasion of 68.⁴⁵ Thus by connecting these tetradrachms with Roman intervention, we are able to explain why Gortyna took the chief part in minting them,⁴⁶ while Cnossus, the most active mint in Crete at this period, apparently struck fewer specimens than any other city.⁴⁷ We may perhaps infer that she soon gave up the policy of supporting Rome, and so abandoned the coinage connected with it.

NOTE ON THE "LUCULLAN" COINAGE OF 87 B.C.

The problem of the *Λουκούλλειον νόμισμα* has been brought much nearer to solution by M. G. Daux's⁴⁸

⁴⁵ In *Z. f. N.*, xxxv (1925), p. 266, Regling has put forward a theory which would show that Gortyna sided with Mithridates at this time: he suggests that the rare gold coinage of the city (specimens, (i) Paris 2641; Sv., p. 172, no. 113, Pl. XV. 21; (ii) McClean 7115; (iii) R. C. Lockett coll.; *Proc. Roy. Num. Soc.*, 1935-6, p. 10) was issued with similar gold staters of Ephesus, Smyrna, &c., when those cities joined Mithridates in 83-84 B.C. But Crete did not help Mithridates till later (see *supra*, footnote 41), while the Gortynian gold is certainly much earlier; the wooden style of the rev., on which Regling bases his dating, can be found at almost any period in Crete, and it is impossible to separate these coins from the silver of the late third cent. (Sv., nos. 114-19), which has an exactly similar obv.; the rev. type is also found on bronze of this period (Sv., nos. 107-8). The issue of gold should be connected with the civil war that broke out at Gortyna in 219 B.C. (*Polyb.*, iv. 53-5).

⁴⁶ There survive some twenty specimens, struck from at least four obv. and seven rev. dies.

⁴⁷ The only specimens known to me which are unquestionably genuine are the old B.M. one (*B.M.C.*, 40, Pl. VI. 4), and the one in this hoard; both are struck from the same pair of dies. For the number of specimens from other mints see Macdonald, *op. cit.*, p. 13, and for Lappa (of which he only records one, Hirsch Cat., xxi. 2151) add *Ἐφ. Ἀρχ.*, 1889, p. 204, no. 39, and the three mentioned in footnote 35 above.

⁴⁸ *Rev. Num.*, 1935, pp. 1 sqq.

publication of a Delphi inscription of c. 30-20 B.C., which mentions a sum of *πλάτη Λευκόλλεια*; ⁴⁹ he is able to show that the coins in question must be tetradrachms, and proposes to identify them with the well-known uninscribed pieces of Athenian type which bear two trophies as symbols on the reverse.⁵⁰ Unfortunately, however, he has not cleared up one difficulty which must be solved before this identification can be accepted, namely, the correct interpretation of the trophies.

We learn from Plutarch that the "Lucullan" coins were struck in the Peloponnese in 87 B.C.⁵¹ But the uninscribed tetradrachms are usually dated a few years later. As von Sallet first pointed out,⁵² the trophies on them closely resemble those on Sulla's aurei and denarii (*obv.* head of Venus with Cupid: *rev.* jug and lituus between two trophies) which bear the legend *IMPER ITERVM*; and it has been thought that both trophies and legend refer to his two victories in 86 B.C., on the assumption that he was saluted as Imperator for the first time after Chaeronea and for the second after Orchomenus.⁵³

⁴⁹ The term *πλάτος* no doubt refers to the spread fabric of Hellenistic tetradrachms, and may be compared to the English "broads" or "broad-pieces" of the seventeenth and eighteenth centuries.

⁵⁰ *Sv.*, *Trésor*, Pl. 78. 20-4.

⁵¹ *Loc. cit.*; the coins were struck before Lucullus left for the East in winter 87/6. Note that Plutarch does not apply the term *Λευκοίλλειος* to the later series which Lucullus struck from the indemnity of 20,000 talents paid by the cities of Asia Minor in 84 B.C. (*Luc.*, 4).

⁵² *Z. f. N.*, xii (1885), pp. 881-3.

⁵³ Orchomenus should be dated late in 86 and not in 85 B.C.: *C.A.H.*, ix. 252.

But literary evidence suggests that he already bore this title before reaching Greece;⁵⁴ if so, von Sallet's whole argument breaks down, and we should look for a different interpretation of the trophies. Further, whatever the date of the Roman coins may be, the tetradrachms need not have been issued at the same time. The style of some specimens is very different from the rough workmanship of the aurei and denarii, and incidentally shows that the tetradrachms can hardly have been minted at Athens. The workmanship of the best obverse die⁵⁵ is far superior to that of the Athenian coins of this time, and the treatment of the owl on the reverse is quite different. At the same time there seems no stylistic ground which prevents our assigning them to a Peloponnesian mint and regarding them as the "Lucullan" issue. On the other hand, the aurei and denarii are roughly and boldly engraved; Mr. E. S. G. Robinson tells me that to his eye they display all the characteristics of the Athenian style of the period, which suggests that they were struck at Athens after its capture by Sulla.

The two trophies should be regarded as Sulla's personal device;⁵⁶ we know that he had three engraved

⁵⁴ This evidence, duly cited by Mommsen (*Röm. Münze.*, p. 594, note 379), was ignored by von Sallet. But it agrees with the evidence of the hoards, which (as Mr. Mattingly points out to me) suggests that Sulla's coins with IMP only are earlier than those with IMPER ITERVM.

⁵⁵ See specially the Paris specimen (figured by Daux, *loc. cit.*, better than Sv., *Treſor*, Pl. 78. 21). Svoronos's argument (*J.I.A.N.*, xvii (1915), p. 68) for an Attic origin for these coins, based on their provenance, is shown to be unsound by Plutarch's allusion to their widespread circulation (*loc. cit.*), and by their appearance in the Delphi inscription.

⁵⁶ So already Babelon, *Monn. de la Républ. rom.*, i. 407.

on one of his signet-rings,⁵⁷ and the difference in number may be due simply to the difficulty of finding room for three on the coins. It is not necessary to assume that they refer to any particular victories: but, if they do, there are several possible occasions earlier than Chaeronea and Orchomenus. For instance, we hear that after the surrender of Jugurtha, King Bocchus dedicated some Victories bearing trophies on the Capitol in honour of Sulla,⁵⁸ an event which led to quarrels with Marius; and it can hardly be doubted, though there seems to be no literary evidence for it,⁵⁹ that Sulla himself erected trophies after his victories in the Social War.⁶⁰ Nor does the actual form of the trophies on the coins compel us to connect them with Chaeronea and Orchomenus; the two distinctive features, the crested helmet and small round shield, are typical of Italian armour of the period, such as would have been worn by Sulla's enemies in the Social War,⁶¹ and so need not necessarily be regarded as Pontic or Greek. There is therefore no good reason for rejecting M. Danx's theory, and we may accordingly identify the tetradrachms with the "Lucullan" coinage of 87 B.C.

E. J. P. RAVEN.

⁵⁷ Dio Cassius, xlii. 18. 3.

⁵⁸ Plutarch, *Sulla*, 6. 1; *Marius*, 32. 2. Sulla also destroyed the trophies erected by Marius for his victories over Jugurtha, the Cimbri and the Teutones; refs. in Platner-Ashby, *Topogr. Dict.*, s.v. Tropaea.

⁵⁹ Cf., however, Plutarch's remark (*Comp. Lysand. and Sulla*, 4) on the number of Sulla's trophies.

⁶⁰ For a possible representation of these see *Arch. Anz.*, 1909, pp. 559-69.

⁶¹ Cf., for instance, the relief of Mettius Curtius, *C.A.H. Plates*, iv. 80a, and the representation referred to in the previous note, both of which show the same type of helmet and shield.

VIII.

THE FLAT BRONZE COINAGE OF NICAËA.

THE flat bronze coinage of Nicaea forms a compact and interesting little series which has hardly received the attention it deserves. As far as our knowledge at present goes, with a single exception to be mentioned presently, it is confined exclusively to the reign of John Ducas Vatatzes (1222-54). Of this emperor Sabatier gives the five following types, with three minor variants:

1. *Obv.*

1̄	Ω
Δ	ΔV
Ε	K
C	A
	C

Emperor standing facing, holding sword in r. hand and with l. hand resting on thigh.

Rev. Square formed of four interlaced bands ornamented with dots and with dot in centre of square.

Sab. 5, Pl. LXIV, fig. 11; *B.M.C. Vandals, &c.*, p. 219, n.



- 1a. *Var.* Without dot in centre of square.

Sab. 6, Pl. LXIV, fig. 12.

2. *Obv.* $\overline{\Gamma\Omega}$ O Half-length figure of Emperor facing,
 Δ holding labarum.
 ϵ
 ζ
 Π

Rev. Shield ornamented by flower of three leaves, surmounted by two dots; to r. triangle of three dots.

Sab. 7, Pl. LXIV, fig. 13.



3. *Obv.* $\overline{\Gamma\Omega}$ O Half-length figure of Emperor facing,
 Δ Δ holding long cross in r. hand and roll
 ϵ O in l.
 ζ V
 Π K

Rev. A fleur-de-lis between two dots.

Sab. 8, Pl. LXIV, fig. 14.

4. *Obv.* $\overline{\Gamma\Omega}$ O Half-length figure of Emperor facing,
 Δ Δ holding labarum in r. hand and globus
 ϵ γ cruciger in l.
 ζ K

Rev. Head of winged seraph between two triangles formed of three dots.

Sab. 9, Pl. LXIV, fig. 15; *B.M.C. Vandals*, &c., p. 218, no. 32.

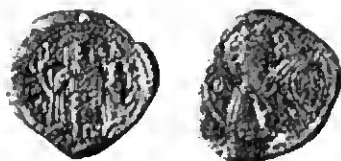
- 4a. *Var.* The same, but of very small module.

Sab. 10.

5. *Obv.* $\overline{\Gamma\Omega}$ O Emperor standing facing, holding long
 Δ $\Delta\gamma$ cross in r. hand and roll in l.
 ϵ K
 ζ A
 Π C

Rev. (A) O Bust of St. George, nimbate, facing, holding lance and shield.

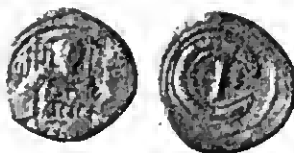
Sab. 11, Pl. LXV, fig. 1; *B.M.C. Vandals, &c.*, p. 219, no. 86.



5 a. Var. The same, but with initials ΓΕΩΡ in monogram.

This last coin he quotes from De Sauley, Pl. XXXI, fig. 6.

To this list the British Museum Catalogue makes no addition, but in the Ratto salo appeared the following coin which brings the number of types up to six:



6. *Obv.* ω (= Ιω) Half-length figure of Emperor facing, holding labarum in r. hand and glohus cruciger in l.

Rev. Cross within crescent-shaped ornament decorated with dots.

Ratto 2292; *Num. Chron.*, 1931, p. 157.

Of the above six types no. 5 is the only one which can be described as of comparatively common occur-

rence. Nos. 2, 3, and 6 are apparently represented by single specimens. In the British Museum Catalogue four examples of no. 4 (Pl. XXX. 8 and Pl. XXXI. 1) and a like number of no. 5 (Pl. XXXI. 2-5) are described. I have not been able to trace the whereabouts of nos. 2 and 3. They are not in the Paris collection. No. 6 is now in my own cabinet. It is a little difficult to reconcile Sabatier's description of no. 2 with his illustration, and it rather looks as if he may have had before him an indifferent specimen, or inaccurate drawing, of no. 4.

The only other coin of the series of which I am aware can, I think with considerable confidence, be assigned to Theodore II of Nicaea.¹ It may be described as follows:

Obv. . . . ΔΕCΠΟΗC Emperor standing facing, holding cross and roll.
 ΔΩ
 ΠΟ
 C

Rev. A fleur-de-lis with dot in each angle.

This coin was first described by Freiherr von Paffenhoffen in a letter from Donaneschingen to M. de Sanley published in the *Revue Numismatique* for 1865. He says the coin is of the type of John Ducas figured by Sabatier (Pl. LXIV. 14), and adds that it seems to him to belong to Theodore II, rather than Theodore III, because it appears to be of slightly better style than the coin of John Ducas. Paffenhoffen takes the Theodores of Thessalonica and Nicaea in their chronological sequence and his Theodore II is consequently Theodore Angelus of Thessalonica. On the strength

¹ Cf. also my note in *Numismatica*, ii (Rome 1936), nos. 4-5, pp. 93-4, Pl. no. 8.

of this attribution the coin appeared in the sale catalogue of the Donanesehingen collection under this reign, but Paffenhoffen's reference to John Dueas makes it doubtful if he really intended to attribute the coin to Theodore Angelus of Thessalonica. In the light of our present knowledge there can be little doubt that the coin does not belong to this Theodore, and Mr. Wroth in a note on page 195 (*B.M.C. Vandals, &c.*), referring to this identical specimen, says: "The small bronze coin attributed by Paffenhoffen in *Rev. Num.*, 1865, p. 291, Pl. XII. 5, to this Theodore (i.e. Theodore Angelus of Thessalonica) would seem, if correctly described, rather to belong to Theodore II of Nicaea."

The possibility of the type being the forerunner of the lis type of John Vatatzes (Sab. 3) must not be overlooked, but since we know of no other flat bronze coin of Theodoro I it seems more reasonable to assume that it was the successor, not predecessor, of the small group of coins which we know to have been in circulation in the reign of John Vatatzes, and presumably belongs to that of his successor Theodore II. Further the lis, which is found in the field of several of the coins of Theodoro II (see *B.M.C. Vandals, &c.*, Pl. XXXI. 8, 10), has never, so far as I know, been met with on the coins of Theodore I Lascaris.

The presence of the lis is itself of interest. In a note on page 222 (*B.M.C. Vandals, &c.*) Mr. Wroth says that the lis has been regarded as an emblem of the Lascaris family, but qualifies the significance of this by a reminder that it also appears not infrequently on Byzantine and mediæval coins. This reminder, however, is valueless unless the appearance of the lis is of

earlier date than the reign to which the note relates (i.e. Theodore II), and this, as far as I can discover, is not the case. The earliest occurrence of the lis on the Byzantine coinage I know of is on a gold nomisma of Andronicus II (B.M.C. Pl. LXXIV. 10).

In the Arta hoard described by Mr. Mattingly in the *Num. Chron.* for 1923 is a bronze nomisma of Michael VIII having for its reverse type a large fleur-de-lis, but this coin Mr. Mattingly assigns to the Thessalonican mint on account of its evident connexion with another nomisma in the same hoard (Pl. III. 8) which, for reasons given, he has already attributed to this mint. I do not question the correctness of Mr. Mattingly's attribution, but it does not preclude the attribution of the coin of Theodore II to the mint of Nicaea. What little evidence we do possess tends to support the presumption that the mint of Thessalonica continued to function after the absorption of the Empire of Thessalonica in that of Nicaea in 1246, and it may well be that the badge of the reigning Nicaean house found its way on to the coinage issued from the Thessalonican mint after this event. It is possible, of course, that the small flat coin of Theodore did emanate from the Thessalonican mint, but in this case I think we should have to assign the whole group of coins with which this article deals to Thessalonica, and I can see no sufficient reason for doing this.

The Donaneschingen coin is now in my possession.

HUGH GOODACRE.

IX.

ON SOME EARLY ENGLISH RECKONING COUNTERS.

[SEE PLATES VII-VIII.]

Most collectors of English coins are confronted from time to time with certain bronze pieces greatly resembling "Edward pennies". They are commonly known as "black money" or occasionally as "Abbey pieces". As a matter of fact, they are not money of any sort, and they have acquired the name of "Abbey pieces" because it was supposed that such things had been dug up in the neighbourhood of old ruined abbeys. Those who are familiar with the late Professor Barnard's book¹ will remember his very full explanation of the uses of reckoning counters. The author also showed that the French counters were largely made at French mints for official use in the French Government Departments.

Professor Barnard dealt very shortly with English, or as he called them "Anglo-Gallic" counters. The English counters can be told at a glance because they are all either partially or completely pierced. Prof. Barnard refers to this piercing² as probably due to the process of manufacture, and suggests that they are analogous to the Ptolemaic coins which were pierced in the process of making. He also remarked on King John's ordinance that bad money should be bored

¹ Barnard, F. P., *The Casting Counter and the Counting Board*, p. 59.

² Barnard, *op. cit.*, p. 95.

through, but, curiously enough, did not stress the point. The counters must surely have been pierced in order to proclaim that they were not real money. As King John's ordinance did not apply to the Continent, it is not surprising that we find no Continental counters with the piercing. In other words, pierced counters are all of English origin. Prof. Barnard has shown that some counters were made in the French mints. It is also possible to point out some English counters which evidently originated in the English mint, that is to say, in London.

The earliest counters which are specifically English belong to the reign of Edward I. There are one or two barbarous copper pieces which resemble the types of Long-Cross coins [Pl. VII. 1]. They have no legends, only a series of vertical strokes. They are not always pierced. It is possible that these are counters, but they may equally be very poor forgeries of Long-Cross coins. The first unquestionable English counters belong to the year 1280. They bear on the obverse a king's head crowned, surrounded by a border of alternate strokes and rosettes. On the reverse is an attractive pattern composed of a cross with stars and crescents in alternate angles; there is a similar border [Pl. VII. 3]. The star and crescent was a Plantagenet badge last used by Edward I. The date can be asserted so positively because of the resemblance between these counters and the English pennies of that year. Most of my readers will be familiar with the classification of the Edward pennies devised by the brothers Fox,³ and will be

³ Fox, H. B. E. and J. S. S., "The Numismatic History of Edward I, II, and III", *British Numismatic Journal*, 1910-1914, in 5 parts. See also *Num. Chron.*, 1917, pp. 279 ff.

aware of the subtle differences which distinguish the crowns and the portraits on the different issues. The interest of these counters lies in the fact that the portraits on some of them are identical with those on various issues of the coins; this identity leaves no room for doubt that the counters were made from the same irons and punches as the coins and are the work of the London mint. Plate VII, nos. 2, 4, 6, 10, 12, 14, 16, and 18 are silver pennies for comparison with the counters.

The counters of the year 1280 bear the same portrait as the pennies of Fox Class II [Pl. VII. 2]. The next portrait which occurs on both pennies and counters is that of Class III [Pl. VII. 4, 5]; this is used with the same star-and-crescent reverse as the counters of Class II. The commonest of the Edward I counters are those with the portrait of Class IV [Pl. VII. 6-9]. These counters are found combined with a large number of reverses, the star-and-crescent type [Pl. VII. 8], three lions on a shield or within a circle [Pl. VII. 9], five fleur-de-lis on a shield or a cross moline. Some of them must have been issued to the orders of private individuals, for counters with this and other obverses are found with the coat of arms of Edmund Crouchback, the King's brother, on the reverse [Pl. VII. 7]. Another variety, certainly struck for a bishop, has the same face as the regal coins of Class IV, but substitutes a mitre for a crown [Pl. VII. 9]. The reverses of these mitred coins have the star and crescent, the three-lion type or the cross moline. A few counters of this class have a border composed entirely of rosettes, but the majority have the same border of alternate strokes and rosettes as the earlier counters.

There are counters also with the unmistakable features of Class VII [Pl. VII. 10, 11]. The crown is composed of three even fleur-de-lis; the rose which on the coins decorates the breast is here placed on either side of the head. The reverse is of the regular star-and-crescent type. Portraits of Class X occur with star-and-crescent or cross-moline reverses. Some counters of this class also have a mitre in place of a crown. In this class a wider variety of reverse begins to appear. The angles of the cross are sometimes filled by clusters of large pellets or stars and crescents combined [Pl. VII. 12, 13].

Another unmistakable group is Class XI, the first of Edward II. On these the left-hand jewel of the crown is invariably broken [Pl. VII. 14, 15]; this feature, occurring on both pennies and counters, was the first to draw my attention to the series. About this time a border of large pellets began to replace the traditional stroke-and-rosette border. Most of the counters of Edward II bear it, though on some of the later ones it is replaced by a border of alternate pellets and rosettes. The later rosettes are completely different from the earlier. The reverse of the Class XI counters is a cross moline, which from now on becomes a standard type. There are counters of Class XIII with the same reverse and of Class XIV with a reverse divided into thirds instead of quarters and small faces in the angles. Another variety has a shield with three crowns [Pl. VII. 16, 17]. Class XV is the commonest of all [Pl. VII. 18-20]. In addition to the mint coins there is a long series of imitations undoubtedly taken from this class; perhaps they belong to the early years of Edward III when the mint was in a somewhat

passive state. The reverses of the Class XV counters have sometimes a large key, sometimes a cross with circles or rosettes in the angles. A new type is a large cross fleury, and a number of flower designs appear for the first time. It is impossible to list all the types. On a few counters the crown is replaced by a chaplet of roses as on the sterlings of Brabant, Cambrai, Lnxemburg, and elsewhere, or by the head-dress shown on Pl. VII. 20.

It must always be remembered that the makers of reckoning counters were not tied down by law to any particular designs. They could make what their clients wanted, or what they thought they could sell. It is probable that the counters actually struck at the mint were for use in the various government departments, and also, perhaps, by certain people in authority. All these people had to have the means of "doing their sums" just as much as the butchers and bakers had to.

It must not be thought that all portrait counters are mint work; perhaps the majority from their obvious barbaric features must be considered unofficial, and cannot be precisely dated. In addition to the portrait counters there is an even larger class of counters which combine shields or patterns on both sides. Many of these have similar reverse types to the portrait counters, and even use the same reverse dies. It is, of course, impossible to classify them as accurately as the portrait counters; nevertheless certain types and borders clearly belong to particular reigns. For instance, counters which have a border of alternate strokes and rosettes or which use the star-and-crescent reverse undoubtedly belong to Edward I. Those with a border of large pellets are equally certainly of Edward II. Many of

the remaining counters with more complex borders belong to Edward III.

During the reign of Edward III a new class of counter appeared, larger and thicker than those of his two predecessors. Amongst these are the well-known 'wardrobe counters', issued presumably for the use of the office of the King's wardrobe. The earliest of these is one which reads on the obverse

+ ✠ LG OP TRD ✠ ✠ SVB ✠ ✠

and on the reverse

+ ✠ GTRD ✠ ROBE ✠ ✠ RAGIS ✠ ✠

[Pl. VIII. 1]. On the obverse is the type of the half-florin of 1344 and on the reverse is a cross pattern.⁴ The lettering of this counter is that of the Florin issue of 1344. The second counter shows the king half-length, and bears the legend

+ EDWARDVS ✠ ✠ REX ✠ ✠ RAGNAT.

The reverse is similar to the previous counter and reads

+ ✠ GARD ✠ ✠ ROBE ✠ ✠ RAGIS ✠ ✠

[Pl. VIII. 2].⁵ The lettering of this counter is that of the noble of 1346; notice especially the chevron-barred A. Another counter has the same obverse legend

+ EDWARDVS ✠ ✠ REX ✠ ✠ RAGNAT ✠

around a shield with three keys on a band. The reverse has the legend

+ ✠ GARD ✠ ✠ ROBE ✠ ✠ RAGIS ✠

and a similar type [Pl. VIII. 3].⁶ This obverse is also used with a reverse without legend [Pl. VIII. 4]. This particular wardrobe reverso die must have remained long in use for it is found again with one obverse die bearing, strangely, the arms of Evreux surrounded by

⁴ *Medallic Illustrations*, i, p. 8, no. 5.

⁵ *Ibid.*, i, p. 7, no. 3.

⁶ *Ibid.*, i, p. 7, no. 4.

the letters of the alphabet [Pl. VIII. 5].⁷ Here the lettering, especially the M, is characteristic of Richard II. This alphabet die is also used with a reverse die without legend [Pl. VIII. 6]. There is only one other wardrobe counter, and this uses the same late wardrobe reverse. The obverse has no legend but shows a leopard rampant within a tressure and a border of leaves and crosses [Pl. VIII. 7].⁷ This obverse is also used with three different reverses without legend. Another of these large-size counters has four small circles on the obverse each containing the king's portrait as on the farthings [Pl. VIII. 8]; I cannot convince myself that the heads are made from the same punches as the farthings of Richard II, but they certainly bear a strong resemblance. This is used amongst others with an alphabet reverse. Another counter of the same period has a remarkable side-face head resembling the Roman emperor Postumus, with the legend

☞LÆSOVDXTM:DE:BTBILORÆ

[Pl. VIII. 9]; it is used with various reverses including an alphabet and an Ave Maria type.

In addition to the large counters of Edward III there is a common class of smaller counters which undoubtedly belong to his reign. Most of them have types resembling French or Anglo-Gallic coins, such as the king standing or seated beneath a canopy; they can often only be distinguished from the continental counters by the piercing. The English counters mostly read on the obverse REX TM [Pl. VIII. 10] or GRÆ REX [Pl. VIII. 11], while the continental ones generally read DE LIT TOVS or DE LIT TONE. Sometimes the reverses of the English counters have legends

⁷ Not in *Medallie Illustrations*.

such as GLORIT TIBI DOMINQ [Pl. VIII. 12], GLORIT OTT or TVQ NTRIT G. PLQRT. Sometimes there is a collection of meaningless letters. Usually, however, there is only a floral pattern. It is impossible to give here anything approaching a complete list of the varieties. Like the larger counters they must have lasted into the reign of Richard II. There is one counter in my collection which has the usual canopy obverse combined with a floral reverse in the corners of which is inserted the letter R [Pl. VIII. 10]; it has occurred to me that this may be intended as the initial of Richard.

The series of English counters appears to end some time towards the close of the fourteenth century. Perhaps during one of the lapses into inactivity which were so frequent at the mint in this period, they were replaced by the prolific productions of French and German mints. These foreign tokens are still found here in large numbers on all medieval sites; hence the name "Abbey" tokens.

These counters are an interesting bypath of British Numismatics. Struck to satisfy a demand and obeying no laws, they present an infinite variety of types often decorative and pleasing. No documents have survived to explain their types, and we are only able to guess at their makers and users. I have shown reason to think that some at any rate were made at the mint and some for particular people and places. I commend them to numismatists as an amusing sideline to the more serious study of our medieval coins.

L. A. LAWRENCE.

X.

COINS OF JAHĀN SHĀH KĀRĀ KŌYŪNLŪ AND SOME CONTEMPORARY RULERS.

[SEE PLATE IX.]

RECENTLY I purchased several lots of silver coins in an auction room in London which, with one exception, appear to belong to a single find. Classified by rulers they show the following details:—

Shāh Rukh	13 (nos. 1-13)
Ulugh Beg	2 (nos. 14-15)
Abū Sa'īd (overstruck)	1 (no. 16)
Abu'l-Kāsim Bābur	1 (no. 17)
Bābur II (?)	6 (nos. 18-23)
Mahmūd (? son of Abu'l-Kāsim)	1 (no. 24)
Iskandar Shāh Kārā Koyūnlū	1 (no. 25)
Jahān Shāh	93 (nos. 26-118)
'Alī Mirzā	2 (nos. 119-20)
Shamakhī (autonomous)	6 (nos. 121-6)
Muhammad bin Faḥlād (of Khokand)	1 (no. 127)
Total	<u>127</u>

The first half of the ninth century of the Hijra era was a period of perpetual struggles in the east of Asia Minor, in Īrān, and in 'Irāk, among the descendants of Tīmūr, the Kārā Koyūnlū or Black Sheep Turkomans, and the Āk Koyūnlū or White Sheep. Shāh Rukh, who practically succeeded Tīmūr, reigned from 807 to 850 and his coins are well known. Those occurring in this find are:—

1. Isfahān, dated 829, see *B.M.C.*, Add. II, p. 149, no. 64 d.
2. Tabriz, 84 × (? 840), see *B.M.C.*, VII, 91, and plate.

3. Tabriz, no date, same type as no. 2, countermarked ⌘ in pear-shaped border.

4. Tabriz, 852.

<i>Obv.</i>	<i>Rev.</i>
السلطان ا . . .	In small square
شاه رخ بهادر	ضرب
ملکه و سلط . . .	تبریز
[—]هـ	<i>Kalima</i> in Kufic about it.

AR. 0.65 in. Wt. 77 grs. [Pl. IX. 1.]

Shāh Rukh died in 850, and Jahān Shāh had already struck coin in his own name at Tabriz in 848, though there is a later coin of Shāh Rukh struck at Tabriz, dated 849, in *B.M.C.*, Add. II. p. 152. I cannot explain how Shāh Rukh's name was revived here two years after his death, except that the successors of his time were still fighting each other. *B.M.C.*, VII, describes two coins struck at Herāt at even later dates, viz. 857 (no. 88) and 859 (no. 89).

5, 6. Sultāniya, 847, *B.M.C.*, VII, 86.

7. Sultāniya, 848.

<i>Obv.</i>	<i>Rev.</i>
ضرب	In central space (?) سلطانیه
السلطان الاعظم	surrounded by <i>Kalima</i> in
شاه رخ بهادر خلد الله	Kufic margins.
ملکه و سلطانیه	
سلطانیه	

AR. 0.725 in. Wt. 76.5 grs.

8. Sultāniya, 850.

<i>Obv.</i>	<i>Rev.</i>
In circle with dots outside	In centre, without a frame
سنة السلطان الاعظم	غرب سلطانية
شاه رخ بهادر خلد الله ٨٥٠	Surrounded by <i>Kalima</i> in Kufic within circle with dots outside. In arcs
A half-dirham.	ابو بكر عمر ... عثمان

R. 0.65 in. Wt. 25 grs. [Pl. IX. 2.]

9-13. Shāh Rukh, various types, but no mints or dates legible.

There are two coins (nos. 14 and 15) of Ulugh Beg who succeeded Shāh Rukh in Transoxiana, though not without opposition in Khurāsān, and reigned till 853. They differ from *B.M.C.*, VII, 109, but bear no date. One may be of the Herāt mint.

16. Abū Sa'īd. No mint or date.

<i>Obv.</i>	<i>Rev.</i>
کورکان	عدل
ابو سعيد	سلطان
عدل سلطان	جهانشاه

R. 0.7 in. Wt. 75 grs.

Abū Sa'īd's coins are of two classes, viz. those of his own exclusive mintage, and those of other rulers counterstruck by him. This specimen appears to be the first recorded in which his countermark appears on a coin of Jahān Shāh. Abū Sa'īd escaped from prison, where he had been placed by the parricide 'Abd al-Laṭīf, son of Ulugh Beg, and after 'Abd al-Laṭīf's death he seized Bukhārā and in 861 took Herāt. Here he came into conflict with Jahān Shāh who, however,

after taking that city relinquished it to Abū Sa'īd. This type of Jahāu Shāh's coin is not dated; cf. nos. 103-8.

The next ruler represented is Abu'l-Kāsim Bābur who held parts of northern Persia and 'Irāk for a time, but in 857 lost 'Irāk, Fārs, and Kirmān to Jahān Shāh, and died in 861. One coin of his, no. 17, is of Herāt and of the type described in *B.M.C.*, VII, 121, but is not dated. The British Museum coin is dated 854, and I possess one of this mint dated 859, and one dated 861, possibly of Nimrūz.

In the *B.M.C. Shahs of Persia*, R. Stuart Poole assigned certain coins to Bābur tho Chaghatai as vassal of Ismā'il Šafavī of Persia, cf. Introduction, pp. xxiv-xxviii. One of these, a gold coin no. 652, is clearly struck in the name of Ismā'il, and tho only possible connexion with Bābur is that it bears a word which may be read as Muḥammad. At pp. xxvii-xxviii four other coins are mentioned which certainly bear the name Bābur. They are again described in *B.M.C.*, Add. II, p. 163, and one is figured in Pl. XXXI. Stuart Poole's reason for assigning them to Bābur tho Chaghatai, is that Firishta and Khāfi Khān both say that in 917 Bābur, having taken Samarkand for the third time, struck coin in his own name, while Khwandamīr says that he gave tho honour to Ismā'il, and Iskandar Beg mentions only the reading of the *Khuṭba* in the name of Ismā'il, and does not refer to coinage. R. Stuart Poole also lays stress on the fact that tho four silver coins show Persian influence as they bear the names of the Imāms. The present find includes specimens of two of these coins, viz. no. 18 is *B.M.C.*, Add. II, no. 134 t, and no. 19 is no. 134 x. It

also includes four other coins of rather similar style which represent two new types, viz.:

20, 21.	<i>Obv.</i>	<i>Rev.</i>
	In oval	In small square
	بابر بهادر	الله
	<i>Margin.</i>	<i>Margin. Kalima.</i>
	السلطان الاعظم خلد الله ملكه	
	<i>R.</i> 0.75, 0.8 in. <i>Wt.</i> 75, 77 grs. [Pl. IX. 3.]	
22, 23.	<i>Obv.</i>	<i>Rev.</i>
	السلطان الاعظم	In square <i>Kalima</i> with
	بابر بهادر in lozenge	علي ولي الله
	خلد الله ملكه	<i>Margin. Imams.</i>
	<i>R.</i> 0.8, 0.75 in. <i>Wt.</i> 77 grs. [Pl. IX. 4.]	

I would suggest that the four silver coins published by R. S. Poole and the six in the present find are coins of Abn'l-Kāsim Bābur struck on campaigns. Apart from a single coin, this find appears to have been deposited soon after the death of Jahān Shāh in 872 or forty years before the events on which R. S. Poole relies. In 906 Bābur Chaghatai struck coin at Samar-kand with Sunnī inscriptions.¹ It seems probable that if in 917 he struck coin there again he would have followed the same practice. The ten coins now being discussed bear much the same relation to Abu'l-Kāsim's more formal issues that some of Jahān Shāh's types bear to one another, and the epithet "Bahādur" on them is more commonly used by the descendants of Timūr in Persia than by Bābur the Chaghatai. The latter held Samarkand only from October 1511 to May

¹ R. B. Whitehead, *Panjab Museum, Lahore, Catalogue*, Vol. II, no. 9, p. 4.

1512 and he is unlikely to have issued five different types of coins in that short space and in the very limited area which he held, while Abu'l-Kāsim ruled precariously for much longer and over a wider territory.

The coin which I would place next bears the following inscription :

24. *Obv.*

In circle

شاه محمود

خان بهادر

Margin.

... خلد ...

Rev.

In circle *Kalima*, &c., as
no. 22.

Margin?

At. 0.75 in. Wt. 77 grs. [Pl. IX. 5.]

I would assign this coin, which appears to be new, to Mīrzā Shāh Maḥmūd son of Abu'l-Kāsim Bābur who was killed in 863. It bears no mint or date.

The chief interest in the find lies, however, in the large number of coins of Jahān Shāh of the Kārā Koyūnlū, a tribe of Turkomans who gradually extended their power over Īrān and 'Irāq in the first half of the ninth century of the Hijra era, coming into conflict with Tīmūr and his descendants. Kārā Yūsuf, the first of the line to become independent, died in 823, and was succeeded by his son Iskandar, represented in this find by the following coin :

25. *Obv.*

In octagon

ضرب

السلطان الاعظم

ابو المظفر سكندر

[كاشان]

Rev.

In circle *Kalima* and
Imāms around.

At. 0.85 in. Wt. 75 grs. [Pl. IX. 6.]

It is not dated and the reading of the mint Kāshān is not certainly, though probably correct. Iskandar spent his life fighting with Shāh Rukh and other rulers. In 838 his brother Jahān Shāh joined Shāh Rukh in attacking Iskandar who was defeated and Shah Rukh then placed Jahān Shāh in charge of the Kārā Qoyūnlū territory. A year later Iskandar was murdered in a fortress and Jahān Shāh, who bears a ruthless character in the annals, entered on a career of conquest which gave a territory extending far beyond the province of Āzarbāijān to which he had succeeded. Thus by 856 he held 'Irāk al-'Ajamī, and invaded Fārs and Kirmān.* In 862 he took Khurāsān, and was enthroned at Herāt, but being threatened by Abū Sa'īd as well as by a rebellion in Āzarbāijān caused by his son Ḥasan he made peace with Abū Sa'īd, as related above, and marched west. Ḥasan was defeated and another son Pīr Būdāk was transferred from Fārs to Baghdād where he also rebelled, entailing a long campaign by Jahān Shāh before he was killed and replaced by a brother named Muḥammad Mīrzā. By this time Jahān Shāh held 'Irāk and almost the whole of the present kingdom of Irān excluding Khurāsān. Aiming at a further extension westwards in 871 he attacked Ḥasan Bāyandarī or Ūzūn Ḥasan, the leader of the rival Turkomans known as the Āq Qoyūnlū or White Sheep, but was surprised in the following year 872 by Ūzūn Ḥasan and killed.

The present find adds three new mints, Darab, Damāvand, and Simnān, with certainty, and possibly three others, Shīrāz, Qazvīn, and Urmīya to those

* E. G. Browne, *Persian Literature under Tartar Dominion*, p. 402.

already known. It includes seven dates, all falling within the limits of Jahān Shāh's reign, which are not included in published lists of his coins.

Three main types may be distinguished, viz. (a) fairly well executed coins which on good specimens bear a mint-name and date, (b) coins of cruder execution which do not seem to have a mint or date as a rule, and (c) coins of other rulers counterstruck by Jahān Shāh. The coinage of Tabriz is fairly uniform and resembles that of the same mint struck by Shāh Rukh. A detailed description follows.


26.	<i>Obv.</i>	<i>Rev.</i>
	ن السلطان	In small square
	ز ت ه	ضرب
	الغاجهانشاه خلد	تبريز
	تبريز نته	Kalima in Kufic in larger enclosing square.
	ملكه و سلطا	In segments, above,
	x ۴ (?)	ابو بكر
	R. 0.65 in. Wt. 78 grs.	


The unit figure is probably 1.


27.	<i>Obv.</i>	<i>Rev.</i>
	As on 26, but less complete and lacking تبريز. Date (8)48.	As on 26, but in left seg- ment و عثمان
	R. 0.6 in. Wt. 78 grs.	

28.	<i>Obv.</i>	<i>Rev.</i>
	As on 26, but lacking تبريز. Date 855.	As on 26, but above ابى [على م]رتقى and ر. بكر صديق
	R. 0.65 in. Wt. 77 grs. [Pl. IX. 7.]	

29. *Obv.* *Rev.*
 ن
 السلطان الغاز
 محمد لله
 جهانشا خلد الله
 ضرب تبریز
 و سلطانته
 ۸۵۷
 As on 26.
 R. 0.75 in. Wt. 78 grs. [Pl. IX. 8.]

30. *Obv.* *Rev.*
 As on 29, with mark  As on 26.
 over جهان. No date.
 R. 0.65 in. Wt. 78 grs.

31. *Obv.* *Rev.*
 As on 29, with mark  As on 26.
 over جهان. No date.
 R. 0.65 in. Wt. 78 grs.

- 32-3. *Obv.* *Rev.*
 ن
 السلطان
 زع
 جهانشا خلد
 ملکه و سلطانته
 ۸۶۱
 As on 26, but 
 arranged diagonally in square, and no square enclosing *Kalima*. Plain outer circle with surrounding circle of dots. In margin
 عثمان و علی
 R. 0.7 in. Wt. 78 grs. [Pl. IX. 9.]

34. *Obv.* *Rev.*
 As on 33. As on 26, lacks margins.
 R. 0.65 in. Wt. 78 grs.

35. *Obv.* *Rev.*
 As on 32-3, but no date. As on 32-3, but | ابو بكر |
 | و عمر |
At. 0.75 in. *Wt.* 78 grs.

- 36-8. *Obv.* *Rev.*
 As on 32-3, but ضرب at *As on 26, lacks margins.*
 top and no date.
At. 0.65, 0.7, 0.7 in. *Wt.* 78 grs.

39. *Obv.* *Rev.*
 As on 32-3, with fuller *As on 32-3, but square*
 inscription. *enclosing Kalima.*
At. 0.7 in. *Wt.* 77 grs.

- 40-1. *Obv.* *Rev.*
 As on 26. In margin of
 39 | و علي | and
 of 40 | ابو بكر |

السلطان الغيا (ز)
 الله
 جهانشا خلد
 قبر نته
 و نيز
 ملکه سلطا

۸۱۱

In scalloped ring sur-
 rounded by plain circle and
 circle of dots.

At. 0.75, 0.8 in. *Wt.* 78 grs. [Pl. IX. 10.]

42. *Obv.* *Rev.*
 *As on 26, but no square*
 (ز) (س) *enclosing Kalima. Margin*
 الغيا جهانشا | ابو |
 الله ملکه و سا
 ضرب قبر (نيز)
 ۸۱۲

At. 0.7 in. *Wt.* 78 grs.

43. *Obv.* *Rev.*
 As on 26, but date ۸۶۳. As on 26.
 Traces of scalloped border. *Margins* | عثمان | و علی |
 Al. 0.65 in. Wt. 78 grs.
- 44-5. *Obv.* *Rev.*
 As on 27, but date ۸۶۴. As on 26.
 Traces of scalloped border. *Margins.*
 ابو بکر | | عثمان | و علی
 | عمر | و عثمان |
 Al. 0.7, 0.65 in. Wt. 78 grs.
46. *Obv.* *Rev.*
 (?) السلطان الغازی
 ۛ الله
 (جها) نشا خلد
 و تبریز فته
 ملکه سلاط
 ۸۶۶ (?)
 As on 26.
Margins poor.
 Al. 0.65 in. Wt. 78 grs.
- 47-8. *Obv.* *Rev.*
 As on 46, but no date. As on 26.
 On one coin ☒ above خلد. *Margins.*
 علی المرتضیٰ | ابی بکر صدیق |
 | و عثمان |
 Al. 0.65 in. Wt. 78 grs.
- 49-50. *Obv.* *Rev.*
 As on 27, but date ۸۶۸. As on 26.
 Scalloped border within plain circle. Shape irregular. *Margins.*
 ابو بکر | | عثمان | و علی |
 | و عثمان | و علی |
 Al. 0.75, 0.7 in. Wt. 78 grs.

51-4. *Obv.* *Rev.*

..... As on 26.
جهانشا خلد *Margins poor.*

و نته
ملکه سلطا

۸۶۹

In scalloped border with
plain circle and circle of
dots.

R. 0.6, 0.6, 0.7, 0.7 in. Wt. 78 grs.

55-6. *Obv.* *Rev.*

In scalloped border. As on 26. Traces of names
of Imāms.

ن
السلطا

زے
الغا جهانشا خلد
الله و نته
ملکه سلطا

ضرب تبریز
?date

R. 0.75, 0.8 in. Wt. 78 grs.

57. *Obv.* *Rev.*

ضرب

As on 26, but ضرب in
small octagon. تبریز

ن
السلطا الغا

(ز) ی ه الله
جهانشا خلد

و تبریز نته
ملکه سلطا

Margin | ابو بکر |

R. 0.7 in. Wt. 78 grs.

58. *Obv.* *Rev.*

As on 57, omitting تبریز.

As on 26.

Margin | ابی بکر صدیق |

R. 0.7 in. Wt. 77 grs.

- 59-61. *Obv.* *Rev.*
 Inscription poor. Possibly As on 26.
 the same as 47-8. *Margins.*
 | عثمان | و علی |
Ar. 0.6, 0.65, 0.65 in. *Wt.* 78, 77, 79 grs.

62. *Obv.* *Rev.*
 As on 26.
 Margins poor.
 ز
 (ال)غای جهانشا
 خلد الله ملکه نته
 و سلطا
Ar. 0.7 in. *Wt.* 77 grs.

63. *Obv.* *Rev.*
 As on 26.
 Margin | و عمر |
 ن
 السلطا الاء(ظم)
 ز
 الغای جها

Ar. 0.7 in. *Wt.* 72 grs.

Nos. 62 and 63 bear a style of writing different from that of the other coins. The 'he' of Jahān Shāh is not of the butterfly type.

Nos. 64-6. Coins of Tabriz of doubtful type (not weighed or measured).

Nos. 67-72. Coins of Shāh Rukh with countermark of Jahān Shāh in *mikrāb*-shaped frame:

- 67-72. عدل
 ز
 جهانشا
 ضرب درب
 ۸۶۸

It is uncertain whether the mint name is of the place usually written دراب or دارابگرد, or whether the coin was struck at a pass (Ar. *darb*). The execution is not good and درب might pass for تبریز, but coins of that mint and this date are already known. The countermark has defaced the coins so much that the types of Shāh Rukh on them are not clear. (Not weighed or measured.)

Coins of Shāh Rukh, so far as they can be identified, with countermark of Jahān Shāh in *mihrāb*-shaped frame:

73-84.

عدل
 ۸۵
 جهانشا
 فیضی
 ۸۶۹

[Pl. IX. 12]

85. As on 73-84, but with second countermark الله in circle.
 [Pl. IX. 13.]

86. As on 73-84, but with ☒ counter-sunk on opposite side.

87. As on 73-84.

The original mint appears to have been Sāwa. Jahān Shāh's mint on all these coins is probably Darab or Tabriz, the name being combined with ضرب, cf. the method of writing استرآباد on *B.M.C.* VII, Pl. II, no. 67. I can suggest no explanation of the figure 85 or 80 above Jahā-.

88.	<i>Obv.</i>	<i>Rev.</i>
	In plain circle surrounded by dots.	In square enclosed in circle.
	ن السلطان الغيا المظفر ء الله ابو جهانشا خلد دماوند نته ملكه و سلطا	لا اله الا الله محمد رسول الله علي ولي الله <i>Margins.</i> عمر عثمان

Damāvand. Al. 0.75 in. Wt. 74 grs. [Pl. IX. 14.]

89.	<i>Obv.</i>	<i>Rev.</i>
	In plain circle surrounded by dots.	In square.
	ن السلطان الغيا (زي) ء الله جهانشا خلد ن سمنا نته ملكه و سلطا	لا اله الا الله محمد رسول الله <i>Margin.</i> ابو بكر عمر

Simnān. Al. 0.75 in. Wt. 76 grs. [Pl. IX. 15.]

90.	<i>Obv.</i>	<i>Rev.</i>
	In plain circle.	In square with brackets outside.
	ن السلطان بهادر ١٣٥ جهانشا <i>Margin.</i> و سلطانته ضرب Shirāz (?).	(لا اله الا الله (محمد) ل الله رسو (علي) ولي الله <i>Margins.</i> عمر عثمان

Al. 0.85 in. Wt. 78 grs. [Pl. IX. 16.]

91. *Obv.* *Rev.*
 In circle. In circle.
 عدل لا اله الا الله
 جهانشا محمد رسول الله
 بهاد *Margin.*
 ر Divided by arabesques.
 Only عثمان legible.
Margin.
 الله ملكه ضرب
 قزو (ين؟)
 R. 0.7 in. Wt. 74 grs. [Pl. IX. 17.]

92. *Obv.* *Rev.*
 (الله) لك الغازي In square.
 جهانشا لا اله الا الله
 بهاد محمد رسول الله
 خلد الله ملكه على ولي الله
 *Margins.* Illegible.
 ضرب (قزوین؟)
 Kazvin(?). R. 0.75 in. Wt. 78 grs. [Pl. IX. 18.]

93. *Obv.* *Rev.*
 In circle. In small square.
 ضرب
 السلطان الاعظم؟
 المعظم بهادر؟
 ابو جهانشاه؟
 الله ملكه و سلطان (نته)
 Surrounded by *Kalima*
 in Kufic, in larger square
 surrounded by circle. Names
 of Imāms in segments.
 R. 0.7 in. Wt. 79 grs.

The obverse inscription differs from that on *B.M.C.*, VIII, no. 8, of the same mint.

94. *Obv.* *Rev.*
In circle. Badly engraved *Kalima* in
circle.
عدل
سلطان
جهانشاه
يزد
Margin. Doubtful.
Yazd. *Al.* 0.8 in. *Wt.* 76 grs. [Pl. IX. 19.]

95. *Obv.* *Rev.*
In small octagon.
السلطان (الغيا)
زى الله
جهانشاه خلد
ملكه و (رميه)
سا (طانته)
...?
Surrounded by *Kalima* in
Kufic, in double circle with
dots between.
... | ابو بكر | ... between
Kalima and inner circle.
Al. 0.65 in. *Wt.* 78 grs.

The reading of the mint is very doubtful. It might be قزوین, ورمیه, or even تبریز.

96. *Obv.* *Rev.*
In plain circle surrounded In square.
by dots.
السلطان
...
جهانشاه خلد
الله ملكه
لا اله الا
الله محمد
رسول الله
Margin.
على | ابو بكر | عمرا عثمان |
Al. 0.75 in. *Wt.* 73 grs.

97. *Obv.* *Rev.*
In circle. As on 95.
Margins. Illegible.

ن
سلطان
.....
جهانشا(ه)
خلد الله
ملكه

Apparently identical with *Istanbul Cat.*, iv. 953.

Al. 0.85 in. *Wt.* 78 grs.

98. *Obv.* *Rev.*
In circle.
..... لا اله الا
..... جهانشاه محمد
..... خلد الله علي
..... رسول
..... ولي (الله)
Margins. Illegible.

Apparently the same as *Istanbul Cat.*, iv. 954.

Al. 0.8 in. *Wt.* 78 grs.

99. *Obv.* *Rev.*
..... ن
..... السلطان الغا الله
..... جهانشا لا اله الا
..... خلد الله محمد رسول
..... ملكه و ل الله

Al. 0.8 in. *Wt.* 71 grs.

100. *Obv.* *Rev.*
فرب
In square with arabesques
outside.
..... لا
..... محمد رسول
..... علي الله
..... الله ولي
Margins.
..... | عمر | ابو بكر |
Al. 0.75 in. *Wt.* 68 grs.

(sic) السلطان اعظم
(ابو) المظفر جهانشا
الله ملكه و
..... خلد

101. *Obv.* *Rev.*
 As on 100, but ضرب not visible, and showing سلطنته and possibly a mint below, یزد (?).
 As on 100.
 No *Margins*.
 Yazd (?). *R.* 0.7 in. *Wt.* 73 grs.
102. *Obv.* *Rev.*
 In plain oval with dots outside.
 In rectangle enclosed in plain oval with dots outside.
 ن
 سلطان عال
 (چها) نشا خلد

 لا اله الا
 الله محمد
 رسول الله
 In segments.
 ابو بکرا عمر
R. 0.8 × 0.6 in. (roughly oval). *Wt.* 67 grs.
- 103-8. *Obv.* *Rev.*
 In circle. • In circle. *Kalima* in two lines, usually blundered. Names of Imāms in margin separated by arabesques.
 عدل
 سلطان
 جهانشا
R. 0.7, 0.75 (4), 0.8 in. *Wt.* 66, 75, 76 (2), 77, 78 grs.
 [Pl. IX. 20]
- 109-14. *Obv.* *Rev.*
 In small circle. Blundered *Kalima* and divided by lines.
 نشا
 چها
Margin.
 السلطان الغاضی
 بهادر خاند الله ملکہ
 سلطنته
R. 0.75, 0.8 (5) in. *Wt.* 71 (2), 74, 75 (3) grs. [Pl. IX. 21.]

One would expect الغازی or القاضی, but the letter read as غ has only one dot above it.

This type resembles *Istanbul Cat.*, iv. 955.

115-16. *Obv.*

As on 109-14.

Rev.

As on 109-14, but well engraved and no divisions between lines.

Al. 0.8 (2) in. Wt. 78, 79 grs.

117. Counterstruck on coin of Shah Rukh.

Obv.

In hexagon.

عدل
سلطان
جهانشاه

Rev.

Obliterated.

Al. 0.75 in. Wt. 65 grs. [Pl. IX. 22.]

118. Both sides re-struck.

Obv.

السلطان
... (أ) مظفر جهانشا
... الله ...

Rev.

In circle.

.....
(ب) لغازی
جهانشاه

Al. 0.9 in. Wt. 77 grs.

It is uncertain by whom the next two coins were counterstruck. In Markoff's *Catalogue of the Hermitage Collection* similar coins are assigned to an 'Alī Mīrā, who ruled from 871 to 873. One of the coins in the present find was a coin of Jahān Shāh, struck at Tabriz in 865 which gives the earliest possible date. 'Alī Mīrā may possibly stand for Ḥasan 'Alī, son of Jahān Shāh, who rebelled in 864 against his father and took refuge for a time with Ūzūn Ḥasan but left him.

After Jahān Shāh was defeated and killed by Ūzūn Ḥasan in 873, Ḥasan 'Alī attacked Ūzūn to revenge his father, but was himself slain. De Sacy, *Antiquités de la Perse*, pp. 162 sq., quotes a poem inscribed at Chahār Minār by 'Alī, son of Khatīb, son of Ūzūn Ḥasan in 869, but as Ūzūn was born in 828, it is not likely that his grandson would be ordering an inscription in 869, and the date has probably been read wrongly (تَمْنِينَ for سَتِينَ). Khatīb succeeded his father in 882.

119. Coin of Jahān Shāh of same type and mint as no. 46,

but with date (٨١٣), and counterstruck ^{على}میرزا in square.

AR. 0.7 in. Wt. 77 grs. [Pl. IX. 23.]

120. Coin of Shāh Rukh with same countermark as no. 119.

AR. 0.75 in. Wt. 62 grs.

The next six coins are puzzling. On one side is a pentagon with loops at the angles, containing the mint name شامخه, a town in Trans-Caucasia. In the angles is the inscription:

السلطان الاعظم الاعدل (sic!) خلد الله ملكه

On the reverse four coins have the dates 863, 864, and 865 in the centre with the *Kalima* in Kufic about the date. One coin has something instead of a date, part of which may be حسن. Another simply has the *Kalima* in three lines. The arrangement of the obverse is clearly copied from coins of the mint struck by Ḥinsain Jalāir (*B.M.C.*, VI, 615) and by Toktamish Khān (*ib.* 514), in the previous century. A coin of Pīr Būdāk, son of Jahān Shāh, struck during his rebellion, probably in Hamadān or in 'Irāk (*B.M.C.*, VIII, 16),

bears the countermark شاختى and the date ۸۷۷, which must be a mistake for ۸۷۶. The six coins now in question were probably struck by Jahān Shāh's son Ḥasan 'Alī, who rebelled in 863 or 864 and was driven out of Āzarbāijān, and must have retreated north. Colonel E. v. Zambaur published (*Num. Zeitschrift*, 1904, p. 97) an anonymous coin of Baghdād dated 871 which he attributed to Ḥasan 'Alī. Dorn at p. 141 of his *Supplement to Fraehn* publishes four coins of Pīr Būdāk of the Shamākhī mint, of a different type.

121. Obv.

In pentagon

مشافہ و

In angles

... | الاعديل | خلد الله

Alt. 0.65 in. Wt. 46 grs. [Pl. IX. 24.]

Rev.

۸۱۳ in centre, with *Kalima* in Kufic around it.

122. Obr.

As on 121, but ضرب above
شماخه and in angles

... | الأعظم | ...

R. 0.65 in. Wt. 49 grs. [Pl. XI. 25.]

Rev.

As on 121, but aff.

123. *Obv.*

As on 121. In angles

السلطان | | خلد الله |

Al. 0.65 in. Wt. 47 grs.

Rev.

As on 121, but 470.

124. *Obv.*

As on 121. In angles

..... | خلد الله |

Ar. 0.7 in. 60 grs. [Pl. IX. 26.]

Rev.

As on 121. but 179.

125.	<i>Obv.</i>	<i>Rev.</i>
As on 121.	In angles	In centre
... خلد الله الاعظم السلطان		شا (?) حسن
		surrounded by <i>Kalima</i> in Kufic.
	<i>R.</i> 0.8 in.	<i>Wt.</i> 64 grs.

126.	<i>Obv.</i>	<i>Rev.</i>
As on 121.	In angles	<i>Kalima.</i>
... ملك ...		
	<i>R.</i> 0.85 in.	<i>Wt.</i> 61 grs.

All the coins hitherto described are consistent with the theory of a single find, if it be admitted that nos. 18-23 of the find have been correctly assigned to Abu'l-Kāsim Bābur and not to Bābur the Chaghatai. The coins on that hypothesis may have been deposited about 870 or A.D. 1465-1466. There remains one coin which has been added to the lot, but it has some historical interest.

127.	<i>Obv.</i>	<i>Rev.</i>
In plain circle surrounded by dots and ornaments.	In plain circle surrounded by ornaments.	
غازی	لطیف	
۱۲۹۲	خوتند	
محمد	نرب	
بن فولاد خان		
	<i>R.</i> 0.7 in.	<i>Wt.</i> 44 grs.

The year 1292 ran from February 7, 1875, to January 27, 1876 A.D. Schuyler's *Turkestan*, ii, pp. 278 *sqq.*, explains the course of events which led to the striking of this coin. At that time Khudāyār, who was the Khān of Khokand, was unpopular and had twice been

expelled. In 1875 the Russians were planning an expedition against Kāshghar and sent a mission to Khokand as they wished to send troops through that country. A rebellion broke out and Khudāyār took refuge with the Russians, his son Naṣr al-Din being elected Khān in his place. General disturbances took place in the neighbourhood. The Russians advanced on Khokand and after fighting on the way entered the city without opposition on September 10, 1875, and made a treaty with Naṣr al-Din, after which further military operations in the district took place.

A man pretending to be Faulād Beg, grandson of a former ruler, was elected Khān by the Kirghiz, though the real Faulād Beg, a youth of 18, was living quietly in Samarḳand. The inhabitants of Khokand, dissatisfied with the treaty which Naṣr al-Din had made, drove him out of the city. Thereupon partisans of Faulād Beg and of 'Abd al-Ghaffār, a former chief of Uratepe, seized on the government. Their exactions annoyed the people who called on Naṣr al-Din to return, so the Russians re-occupied Khokand on February 20, 1876, and annexed it on March 2. Faulād Beg was captured and hanged soon afterwards.

APPENDIX.

The following tables show the dated coins of Jahān Shāh and his mints so far as I have been able to trace them.

ABBREVIATIONS.

B.M. = British Museum.

H. = Hermitage.

I. = Istanbul.

R.B. = the present find.

T. = Mr. P. Thorburn's collection. A coin of Jahān Shāh without mint or date is published in Dorn's Supplement at p. 145.

DATES.

A.H.	Mint.	A.H.	Mint.
848	Tabriz (R.B.)	852	Kāshān (B.M.)
855	„ (R.B.)	857	Tabriz (H., R.B.)
859	Kāshān (H.)	861	„ (R.B.)
862	Tabriz (R.B.)	863	„ (B.M., R.B.)
864	„ (R.B.)	864	Shirāz (?) (R.B.)
865	„ (R.B.) ¹	866	Tabriz (B.M., H., R.B.)
868	„ (I., R.B.)	868	Darab (?) (R.B.)
868	Kāshān (H.)	869	Tabriz (R.B.)
869	Darab (?) (R.B.)	869	Kāshān (B.M.)
870	Resht (H.), Baghdād ² (B.M.)		

MINTS.

Āmul ³ (T.)	Baghdād (B.M., I.)
Tabriz (H., I. with Baldat, R.B.)	Darab (?) (R.B.)
	Resht (H.)
Damāvand (R.B.)	Shirāz (?) (R.B.)
Simmān (R.B.)	Kazvin (?) (R.B.)
Tihrān (H.)	Lāhijān (B.M., H.)
Kāshān (B.M., I., R.B.)	Yazd (H., I., R.B.)
Urmīya (?) (R.B.)	

R. BURN.

¹ Counterstruck by 'Alī Mīrzā, see no. 118.² Date verified from the coin.³ Mr. Thorburn and the previous owner of this coin had read the mint as Āmid. This reading seems to contradict the known historical facts, as Āmid is Diyārbakr, which Jahān Shāh never held though he proposed to attack it shortly before his death. On the other hand Āmul was well within his territories in Īrān.

XI.

A MALTESE MEDAL OF 1679.

A SPECIMEN of the medal described below was submitted for identification in 1936 to the Ashmolean Museum by the owner, Mlle Hugon. As it offered certain difficulties of interpretation, Dr. Milne, at my



suggestion, consulted Sir Harry Luke, Lieutenant-Governor of Malta, who, in his turn, referred the problem to the Librarian of the Royal Malta Library, Dr. H. P. Scicluna, M.B.E. As was only to be expected, Dr. Scicluna was able without difficulty to identify the occasion for the production of the medal; but there still remained—and indeed still remain—one or two difficulties connected with the heraldry. On this I have had the advantage of drawing on the friendly assistance of Mr. A. Van de Put, F.S.A., late Keeper of the Library, Victoria and Albert Museum. At Dr. Scicluna's request the results are now communicated

to the readers of the *Numismatic Chronicle*. The specimen of the medal here illustrated is that in the British Museum, which is in rather better condition than Milo Hugon's. The latter has since been acquired by Dr. Scicluna, and, I understand, is to find a home in one of the public collections in Malta.

Obv. (quatrefoil) • F • D • MICHEL • DE • MOLI NA • EPISCOPVS • MELINVS Baroque shield of arms: Per palo: I, per fesse, 1, a triple-towered castle with three fleur-de-lis in chief and one in either flank; 2, a bend between two millstones. II, a lion rampant, with in base three fleurs-de-lis, 2 and 1. The shield has a small cartouche projecting upwards from the centre of the chief, bearing a single lily (?), stalked and slipped, and is charged upon a cross of the Order of St. John and ensigned by a prelatial hat. Linear border. The stops are punched.

Rev. Above, half-figure of St. Paul three-quarters r., holding sword; to l. and r., AN (scroll above) 1679. Below, REÆDIFICATÆ|CATHEDRALIS|ECCLÆ FVN|DAMENTA|P Linear border.

Bronze, cast and chased, ↑ 47 mm.

The medal commemorates the laying of the foundation stone of the Choir attached to the Cathedral of Malta, which was and is dedicated to the Conversion of St. Paul.¹ The Cathedral, of Norman date, was destroyed by earthquake in 1693 and rebuilt in 1697-1702. A painting of the old Cathedral is to be seen in one of the Lunettes in the "Armoury Corridor" at the Palace in Valletta.

Michele Gerolamo Molina, who was born at Castel d'Emposta in Spain, was elected Bishop of Malta on April 18, 1678, and promoted Bishop of Lerida, in

¹ Achille Ferris, *Descrizione Storica delle Chiese di Malta e Gozo*, Malta, 1866, p. 79, records that Monsignor Molina laid the stone on May 21, 1679, which is confirmed by the two documents communicated by Dr. Scicluna and printed below.

Catalonia, in 1681.² The curious form *Melinus* in his title is, as the documents show, an abbreviation of *Melivetanus*. That form (where the scholar accustomed to classical texts would expect to find *Melitenus* or *Melitensis*), probably due in the first instance to a mistake, became consecrated by the usage of the Roman curia. It is found as early as 1089, and has been the subject of more than one protest.³

Now as to the arms. Those of Molina, of the kingdom of Leon, according to Rietstap are: *azure*, a tower *arg.*, between two fleurs-de-lis *or*, surmounted by a third fleur-de-lis of the same and supported by the lower half of a millstone of the second; a bordure *gu.* charged with eight saltires *or*. Dr. Scicluna says that the arms on the medal are those of Molina as represented in an armorial MS. in the Royal Library, except that the lion is not accompanied in base by fleurs-de-lis. Mr. Van de Put further writes as follows:

² G. F. Abela, *Malta Illustrata*, cont. by G. A. Ciantar, Malta, 1780, lib. III, not. 1, § 1x, p. 70. Emposta is presumably Amposta, near Tortosa. But the writer in the *Annari heraldic* quoted below says Molina was a native of Fortanete.

³ G. F. Abela, *op. cit.*, lib. III, not. 1, § viii, p. 13, commenting on the signature *Gualterius Melictanus Episcopus testis* in a document of 1089, adds: meglio in vero avrebbe detto Melitensis, perchè non si enrebbe introdotto quell' equivoco di *Melictum* per Malta, e *Melictani* pe' Maltesi, voci anticamente attribuite alla città di Milevio situata o posta nella Numidia, ove celebrossi 'l famoso Concilio Melivetano. I may refer also to Quintinus Haedius, *Melitae ins. descriptio*, in Andr. Schottus, *Italiae illustr. scr.* Frankfurt, 1600, col. 1510: illa Melitensis concilia... Meliuetana Gratianus nominat: & magnus ille Manichæorum propugnator Faustus, Meliuetanus pariter nuncupatur. Quam nunc vulgò appellationem Romann similiter curia usurpat, de Melita nostra sentiens, ex qua Meliuetum detorserunt: cum neutra voce vulgaris appellatio conuenit, Malta vocatur.

There is, fortunately, an armorial of the bishops of Lerida in the "Anuari heraldic mcmxxvii" of the Societat Catalana d'Heraldia of Barcelona, which gives your man at pp. 265-6. A seal (repr. pl. at p. 274) shows the same arrangement of the coat as upon the medal, the dexter half *per fesse*; but a carving at Montçó (same pl.) without the fesse line, brings the bend up alongside the castle, whilst the lion in the sinister half is prolonged downwards so that the fleur-de-lis are very much *in base*. The author says that sometimes the shield is quarterly. No reference is made to Molina's arms in the document (proof of nobility, I suppose) for his entry into the order of St John, which took place in 1648. The second quarter on the dexter side must be his paternal coat, however. I do not know of any criteria for determining whether the sinister should consist of two quarterings, none of his quartiers: Molina x Fonda; Aragonès x Bueso, being given in Garma y Duran, *Adarga catalana*; or by Sagarra in his *Sigillografia catalana* (for seals), and there available reference sources end, so far as I know.

The little cartouche above the main shield may be for Lerida, though why only one lily—when a lily of three stalks is usual? I could not find one mentioned as for the see, but a lily on a cartouche appears above the arms at Lerida.

The last suggestion, that the little cartouche stands for Lerida, is liable to the objection that this medal was in existence by May 1679, when Molina, so far as we know, had no claim to connexion with Lerida, to which see he was not promoted until 1681. Or had he, as Mr. Van do Put suggests, the "expectative" of Lerida? The medal cannot have been made later than the first date, in subsequent commemoration, for we know that a specimen was put in the foundations. The inscription as given in the second document is not, it is true, exactly the same as on the medal, but exactitude in such a matter is not to be expected in the circumstances.

GEORGE HILL.

DOCUMENTS.

I.

Die vigesima prima mensis Maij secundae indictionis anni 1679 Dominica Pentecostes hora septima de mane Illustrissimus ac Reverendissimus Dominus Frater Michael Hieronymus de Molina Dei et Sanctae Sedis Apostolicae gratia Episcopus Melivitanus Regius Consiliarius et Abbas de Aleola, pontificaliter indutus, Reverendissimo Capitulo et Clero associantibus, et Cathedrali Ecclesia processionaliter egressus, accessit ad locum ubi destinata fuit fabrica Novi Chori ejusdem Ecclesiae Cathedralis, et per ipsum Illustrissimum ac Reverendissimum Dominum Episcopum, iactus fuit primarius lapis in fundamento dictae novae fabricae pro ampliatione Chori construenda iuxta decretum per suam amplitudinem Illustrissimam factum in actu Visitationis; supposita capsula plumbea, Agnos Dei, cereos benedictos et vasculum vitreum oleo olivarum plenum et numismata aerea, argentea et aurea, includente, et celebratis prius Sacris Ceremoniis et decantatis orationibus opportunis ad prescriptum Pontificalis Romani benedixit ipsum initialem lapidem lustrali aqua aspergendo etiam totum situm pro fundamentis ejusdem fabricae Chori destinatum quod faustum felixque sit. Unde de mandato dicti Illustrissimi ac Reverendissimi Domini per me Notarium Mariam Saliba Cancellarium Reverendissimi Capituli qui etiam adfui facta fuit praesens nota in actis dicti Reverendissimi Capituli ad perpetuam rei memoriam. (*Archives of the Cathedral of Malta. Registro degli Atti Capitolari, tom. iii, fol. 180.*)

II.

Maggio 1679.

Li 21 maggio di quest' anno si pose sollemnemente la prima pietra fondamentale della fabrica del nuovo Coro colla assistenza del Capitolo, Magistrato, e tutto il popolo; si pose una scatola di piombo nel pedimento, e dentro vi era una medaglia del Papa Innocenzo XI, data per quest' effetto dall' Abbate Costanzo, un' altra del Rè di Spagna Carlo Quinto, ed una moneta del Gran Maestro Fra Nicolò Cottoner, ed una Medaglia fitta dal Vescovo Molina da una parte aveva l'impronta di S. Paolo, e dall' altra vi era l'arma collo seguenti lettero Frater D. Michael Molina Episcopus Melivitanus reedificanda Ecclesia Cathedralis fundamenta posuit 1679. (*Archives of the Cathedral of Malta. Giornale della Santa Chiesa Cattedrale dall' anno 1651 sino al 1700, tomo iv, pag. 735.*)

REVIEW.

Les 'Poulains' de Corinthe, par OSCAR E. RAVEL. Tome I
(De 650 à 415 av. J.-C.), pp. 155 and 23 plates.
Münzhandlung Basel, and Messrs. Spink & Son, Ltd.
1936. 16s.

THIS, the first volume of a publication which presents such an excellent collection of material so objectively that it is not likely to be superseded, takes us down to near the end of the fifth century B.C. It consists of preliminary essays—brief but authoritative—on the method of classification, the chronology, the types and the finds; then the catalogue proper, succeeded by observations on the arrangement which it is sought to establish, by a note on the Corinthian standard, and by an analysis of the use of dies, which shows that, though numerous, the coins of Corinth have survived in small numbers relatively. It is a pity that neither the paper on which the book is printed, nor the photography, are worthy of the matter they present, both being less good than in the sale-catalogues published by the same firm. A sharp dominant light from right or left rarely suits an ancient coin—most dies were evidently cut with the engraver facing or almost facing the source of light. The three plates of enlargements, where the photographer has given some thought to this problem, even if not perfect, are much better: for instance, T. 148 and 162 can hardly be recognized as the coins illustrated earlier on a smaller scale.

M. Ravel makes a classification into three periods—650 to 550, within which the development of the mill-sail—swastika incuse provides a neat basis for arrangement; 549 to 458, and 457 to 415. These divisions are based in part on the belief that important political events may have an effect on the coinage; but he sensibly does not dogmatize about absolute dating. He follows Head in associating the beginnings of the coinage with Cypselus, and Gardner in assigning the change of the incuse for the Athena-head reverse to 550, quoting von Fritze's authority for the remarkable resemblance between the first head of Athena on the Corinthian, and the "first" heads of Athena on the Attic coins. This would carry more weight if we could agree which of the heads on Attic coins are genuine primitives

rather than barbarians, which are the first of true Athenian style, and what their correct date. Among the earliest Corinthian Athenas nos. 98 and 99 (which have no die-links with the series on either side of them) are surely slightly misplaced; their style is later, and the design, with the helmet not thrust back so much as in the undoubtedly earliest examples, later also.

Perhaps the most important single fact established is the deliberate archaism, analogous to that of Athens, of the coinage of Corinth about 480, and a reverse die which links two heads apparently widely separated in date is effectively cited as proof.

No comparison with Corinthian vases is attempted, the reason given being that no pegasi are known except on the coins. But there is the aryballos in Boston (Payne, *Protokorinthische Vasenmalerei*, pl. 20, 2-4), and horses in plenty; nor is it necessary to have identity of subject for a comparison of style to be tried. Possibly nothing can be made of it: but there are important remains of Corinthian painting and terra-cottas, including architectural terra-cottas, for comparison with the heads of Athena, and the attempt would have been worth making. On the other hand, such a statement as "several of the early heads bear a striking resemblance to the korai of the Acropolis Museum", not specifying which coins or which korai, leaves us pretty much where we were. Not so the pure numismatics. Here the research, laborious even for one whose great knowledge fits him so admirably for the task, has produced solid and lasting results. M. Ravel is to be warmly congratulated on it, and his next volume is eagerly awaited.

BERNARD ASHMOLE.

XII.

GOLD COINAGE OF THE REIGN OF THEODOSIUS I.

[SEE PLATES X-XV.¹]

I.

NORTH ITALIAN ISSUES.

SIGNOR LAFFRANCHI's valuable article on the mint of Mediolanum (*Le Monete Milanesi*, "Milano", Agosto 1933-XI) included the ordered and dated sequence of all issues struck there during the sixteen years of Theodosius I's reign. It was especially noteworthy for his recognition of $\frac{1}{\text{COM}}$ as a mint-mark of Milan, Aquileia, "and, perhaps, Thessalonica". No one who has studied this coinage would, I think, now disagree with him (beyond eliminating the "perhaps" before "Thessalonica"). This marks a gratifying advance in unismatic knowledge since Grueber, writing on "The First Corbridge Find" in *Num. Chron.*, 1913, p. 37 n., stated decisively that, whatever the precise meaning of the abbreviation, "at all events it is to the Roman mint that all coins with $\overline{\text{COM}}$ or $\overline{\text{COMOB}}$ only are to be assigned" and claimed the authority of De Salis for this view.

¹ The illustrations are almost all taken from casts made in great numbers and therefore necessarily very hurriedly by myself. This will explain why sometimes there is not exact correspondence between the edges of obverse and reverse of the same coin.

But less demonstrably true is Laffranchi's attribution of these COM coins, which include Gratian, to the four years (383-387) which followed Gratian's death. He compares the posthumous appearance of Gratian's name in the heading of rescripts in the *Codex Theodosianus* as collateral evidence of his official survival. But, as Seeck (*Regesten der Kaiser*, p. 112) says, no reliance is to be placed on the imperial names given in these headings. Two other distinguished numismatists, whom I have consulted, differ from Laffranchi, from each other, and from the present writer, both in their dating of the COM issue itself and in their view of its relation to the other *N* issues of the Valentinian II-Theodosius period. Of these other issues Laffranchi gives CONCORDIA AVGGG with *Vota* of Valentinian II, Theodosius, and Arcadius to 388, and VICTORIA AVGG $\frac{M | D}{COM}$ to 388-393. The issues with VOTA PVBLICA of Valentinian II and Theodosius he assigns to the respective consulates of these emperors in 390 and 393.

I have seen no discussion of this coinage and therefore do not know what evidence could be brought forward in support of each of the contradictory opinions expressed. It seems more likely that the available evidence varied in each case than that the same evidence should lead to widely varying views. Clearly, the problem is a difficult one, and, as its solution is of great numismatic and historical interest, I am anxious to put at the service of fellow students of this period such evidence as I myself have been able to collect.

The coinage reflects the political situation, and this itself for most of the period under review was very

confused. Theodosius owed his throne to Gratian, but their mutual relations were anything but cordial towards the end of their joint reign, and Maximus could claim with plausibility, if not with truth, the approval of Theodosius for his usurpation. After Gratian's death, of the two legitimate Augusti the senior, Valentinian II, was a mere boy of eleven years but fully conscious of his rank; the junior, Theodosius, was an experienced soldier and statesman, and impatient of the independence of his boy-colleague. The third Augustus, the usurper Maximus, no less anxious than Theodosius to play the part of "protector" to the boy, who feared them both, thus served to maintain for a while an unstable equilibrium between the two other empires, until finally Valentinian II was driven to make choice of Theodosius as the lesser of two evils. After a brief rule of a year in Italy, Maximus fell. Valentinian II was exiled to Gaul and from 388 to 391 the central empire, still nominally his, was ruled from Milan by Theodosius.

Throughout we see a clash of interests, and this, I think, is duly reflected for us in the many perplexing inconsistencies of much of the coinage. I have elsewhere (*Num. Chron.*, 1934, pp. 114 ff.) pointed out what seemed to me to be evidence of this in the *Aes* of the period, but there are still many problems for numismatists to solve before we arrive at the complete picture and can be certain that we are viewing each part in its proper relation to the whole.

The issues which are most continuous and best linked up by portraits are the gold, and these I propose to illustrate here. I give in round brackets the numbers of each issue which I possess in casts obtained through

the kindness of many Museum Curators and private collectors. Those from the great Dortmund hoard, from which we can infer the comparative numbers of each still current in the west c. A.D. 410, are given separately (marked D) as a check upon the other list. It should be possible to gain a fairly accurate idea of the relative magnitude of the several issues and so to have a criterion by which to judge how far they actually correspond with the financial needs of the time.

The periods among which we have to apportion the coinage are:

(A) The four and a half years between the accession of Theodosius in January 379 and the death of Gratian in August 383, in which Gratian acted as regent for his young brother, Valentinian II.

(B) The four years of Valentinian II's independent rule from August 383 to May 387, when he fled to Thessalonica from the danger threatened by the invasion of Maximus.

(C) The one year of Maximus's rule in Italy. His coinage dates itself.

(D) The three years from August 388 to the summer of 391 during which Theodosius remained in Italy.

The coinage of Eugenius in 393-394 and the last issue of Theodosius before his death in January 395 date themselves.

The mint-marks of the North Italian gold coinage during the years 379-395 are:

(1) AQOBF AQOB MDOB

(2) $\frac{A | Q}{COM}$ $\frac{M | D}{COM}$

(3) $\frac{|}{COM}$

Each of these different styles (except that the final F is peculiar to Aquileia) is paralleled in other parts of the empire under western authority. But, of course, a change of style initiated by Valentinian II could be carried out only in those mints over which he exercised direct control, and between 383 and 387 these were only the North Italian. For instance, $\frac{T|R}{COM}$ could appear only when the Gallic mints had been recovered from Maximus, some time, I think, after the adoption of this style of mint-mark in $\frac{A|Q}{COM}$, $\frac{M|D}{COM}$. It was adopted also in the eastern part of the western empire only after the purely Thessalonican change from COM to COMOB had taken place; the issue from Sirnium is marked $\frac{S|M}{COMOB}$. So I see no absolute necessity to infer that because $\frac{T|R}{COM}$ and $\frac{S|M}{COMOB}$ are clearly post-Maximus, $\frac{A|Q}{COM}$ and $\frac{M|D}{COM}$ must also be post-Maximus.

The *solidi* issued by Valentinian II with the above mint-marks from the North Italian mints between 379 and 395 are:

- (A) VICTORIA AVGG Two emperors seated facing, holding globe.
- (B) CONCORDIA AVGGGΘ Constantinople seated facing, holding shield inscribed with *Vota*.
- (C) VOTA PVBLICA Two emperors seated facing, holding *mapa* and sceptre.

For the following enumeration of the varieties of type or mint-mark, or both type and mint-mark, with which these, or some of them, occur, my evidence is sometimes based upon a single coin. This raises the question whether the coin is the sole survivor of an

issue struck with similar type for all the legitimate emperors, or an issue struck simultaneously with slightly varying type for the different emperors. The recent appearance of an unexpected Theodosius with mint-mark AQOB, no. 1029 of the Santamaria Catalogue of 24 January 1938, suggests that arguments based upon the absence of an emperor from a given issue may prove in the light of fresh evidence to be fallacious. However, the point is of no importance for my present purpose, which is to delimit the periods in which the various mint-marks were used.

(A) VICTOR-IA AVGG

Throughout the reign of Theodosius (with the exception of a few months at the end) the type VICTOR-IA AVGG "Two emperors seated, holding globe between them; behind them, a Victory" continues to recur. This varies in mint-mark and in certain details of the type. The emperors (1) are either equal in size or one is the smaller; (2) are nimbate or not nimbate; (3) have l. leg bare or both legs draped.

In the following enumeration of the varieties noted by me, these three details alone are considered. We find then:

I. M.m. AQOBF

Emperors are nimbate and have l. leg bare.

(a) Emperors equal.

Gratian (6; D. 2) [Pl. X. 2]. Theodosius (2; D. 1) [Pl. XII. 7].

Obverses all have rosette diadem.

(b) One emperor smaller.

Valentinian II unbroken *obv.* legend with IVN (10; D. 1) [Pl. X. 11].

Obverses all have pearl diadem.

The portraits are purely Aquileian and connect with those of the period 375-378.

II. M.m. AQOB

Similar in every respect to Ia *obv.* and *rev.*

Gratian (1). This issue is known to me only through the illustration in the Bourgey Cat., Dec. 1918 (no. 727). The portrait is Aquileian.

(From now onward the obverse portrait has always pearl diadem.)

III. M.m. AQOB

Emperors are not nimbate and have both legs draped.

(a) Emperors equal.

Gratian (4) [Pl. X. 3].

(b) One emperor smaller.

Valentinian II unbroken *obv.* legend with IVN (D. 1) [Pl. X. 12].

A comparison with IV below renders it likely that this issue was struck also in the name of Theodosius.

The portrait of Gratian seems to have been imported from Treveri; cf. Pl. X. 1.

IV. M.m. MDOB

Similar in every respect to III.

(a) Emperors equal.

Gratian (7; D. 2) [Pl. X. 4]. Theodosius (5; D. 2) [Pl. XII. 8].

(b) One emperor smaller.

Valentinian II unbroken *obv.* legend with IVN (2) [Pl. X. 13].

It will be seen that the portraits of Gratian illustrated under III and IV are from the same die. All my other specimens of him also have this Treveran portrait, and clearly follow the same model. There is great similarity, too, observable in the portraiture of Valentinian II; that of Theodosius seems less settled.

V. M.m. AQOB

The emperors are nimbate and have both legs draped.

(a) Emperors equal.

Gratian (1).

Valentinian II unbroken *obv.* legend with IVN (1) [Pl. X. 14].

The portrait of Gratian is extremely similar to that of III and IV. With Valentinian II's comparo Santamaria Catalogue, 24 Jan., 1938, no. 1014 with m.m. MDOB

(b) One emperor smaller.

Theodosius (1, Santamaria Catalogue, 24 Jan., 1938, no. 1029).

This portrait is quite unlike those from Mediolanum and much more resembles Gratian's.

The three coins given under V are all "unique". I know of no other specimen from Gallic or Italian mints on which Theodosius has the "one emperor smaller" variety of reverse. It is, of course, unsafe to assume that V represents a single issue.

(From now onward Valentinian II always has obverse legend DNVALENTINI-ANVS PF AVG)

VI. M.m. COM

The emperors are equal, nimbate, and have both legs draped.

Gratian (31; D. 5) [Pl. X. 5, 6]. Valentinian II (28; D. 8) [Pl. XI. 1, 2]. Theodosius (25; D. 4) [Pl. XII. 9, 10]. Arcadius (1, Laffr., *Le Monete Milanesi*, 18, 19).

The portraiture in general agrees closely with that of the foregoing AQOB and MDOB issues: cf. Pl. X. 3, 4, 6, but occasionally we have a throw-back to the more purely Aquileian style of AQOBF: cf., e.g. Pl. XII. 7, 9. The various issues seem to follow closely upon one another.

This sixth issue meets us with change of mintmark and of the style of Valentinian II's obverse legend, which henceforth on his gold always has the broken form without IVN, identical with that regularly used for Valentinian I. As stated above, one very high authority dates it to the period after Gratian's death. But as others date it to his lifetime, it is clear that the question cannot be regarded as settled. There seem to me to be serious difficulties in the way of placing the whole of the COM issue either before or

after Gratian's death. These difficulties are partly historical, partly numismatic.

Historically, we must consider (a) the adequacy of the various issues, as roughly estimated by the number of extant specimens, to the presumed financial needs of our three periods A, B, and D; (b) the importance attached to Arcadius in the coinage; and (c) the meaning of the change in Valentinian II's obverse legend. If we could know the reason why in the west the uniform signature of the *Comes auri*, a purely western official responsible for the supply of gold to the mints, takes the place on the coinage of the signature of the individual mints, which was retained in the east, we should have another valuable historical clue to the dating. But I can do no more than note the fact. It is interesting to note that when the eastern CONCOR-DIA AVGGG type was borrowed in the west, the old form of signature was revived.

(a) For the last two or three years I have obtained casts of all the *solidi* of the Theodosian period which came under my notice. I presume that the numbers still extant are fairly proportionate to the original issues. I have of the legitimate emperors:

VICTOR-IA AVGGG $\overline{\text{AQOBF}}$ 18, $\overline{\text{AQOB}}$ 8, $\overline{\text{MDOB}}$ 14.
 $\overline{\text{COM}}$ 84.

$\frac{\text{A} \mid \text{Q}}{\text{COM}}$ 10, $\frac{\text{M} \mid \text{D}}{\text{COM}}$ 32. .

CONCOR-DIA AVGGG $\overline{\text{AQOB}}$ 2, $\overline{\text{MDOB}}$ 18.

VOTA PV-BLICA $\frac{\text{M} \mid \text{D}}{\text{COM}}$ 4.

Of the usurpers I have:

Maximus and Victor $\overline{\text{AOOB}}$ 1, $\overline{\text{MDOB}}$ 2. Eugenius
 $\frac{\text{M} \mid \text{D}}{\text{COM}}$ 5.

If period B (i.e. 383-387) were represented by the COM issue alone, it would have twice as many coins as A (i.e. 379-383). But there are strong numismatic reasons for including other issues in B, which would make the disproportion still greater. During the four and a half years of period A Gratian seems to have spent only the winters of 379 and 380 at Treveri and the rest of the time chiefly at Mediolanum. Yet Gratian's last issues from Treveri are represented by more specimens than those from North Italy (Theodosius, for instance, in my collection of casts, has thirteen from the former to eight from the latter), unless we can restore the balance by including some of the North Italian COM coins in A. So far as I can judge from the scanty details that have come down to us of the history of these times, the military expenditure should have been greater in the last four years of Gratian's reign than in the four years that followed on his death.

(b) The second historical consideration is concerned with the position accorded to Arcadius in the coinage. I have myself never seen a coin of his with mint-mark COM, but Laffranchi illustrates one in his article on the mint of Mediolanum. That Gratian gave him but grudging recognition, if any, is certain; that Justin and Valentinian II, after Gratian's death, were estranged from their eastern colleagues is probable, and is, I think, suggested by the coinage; but that the gold coinage of the four years 383-387, if represented solely by the COM issue, should bear no witness to the change of attitude towards Theodosius forced upon Valentinian II by his fear of Maximus and attested by the rest of his coinage is, I think, impossible.

I feel, therefore, rightly or wrongly, that on historical grounds alone it is difficult (1) to make Gratian's death the starting-point of the COM issue and (2) to make this issue cover the whole of the period 383-387.

(c) The third point—the change in the obverse style of Valentinian II—turns out, after all, to be of numismatic rather than of historical interest. It is true, I believe, that the unbroken legend conventionally marks a young Augustus as standing *in statu pupillari* to a senior colleague and that, when Gratian, who had acted as regent for his young brother, died, the normal divided legend of a ruling Augustus might well mark the changed position of Valentinian II. But, in fact, it had been used for him in Gratian's lifetime. As we are dealing with the coinage of Aquileia, let us take the evidence of the Aquileian *siliqua* VIRTVS RO-MANORVM AQPS. My specimens of this give 17 to Gratian, 4 to Valentinian II with his early legend, unbroken IVN, 15 to him with legend divided I-A and no IVN, 20 to Theodosius. Die-identities connect an early Valentinian with an early Gratian (i.e. without curls) and a Valentinian with the later divided legend with a later portrait of Gratian (i.e. with curls). Gratian's position with regard to his young brother was as unchallenged when the later, as when the earlier, coin was struck. The change of legend in the COM issue, then, need have no historical significance at all as marking a change of status. Only when later Theodosius on his Æ coinage still gives Valentinian II, his senior Augustus now freed from tutelage by Gratian's death, the unbroken form of legend, we must surely see in this a

very serious historical significance, for it is never used at this period for a ruling emperor.

Nor can I see any reason why the change of mint-mark should in itself be evidence of the beginning of a new historical period. If the COM issue was already in progress at the time of Gratian's death, it would naturally, I suppose, be continued, with omission, of course, of Gratian's name from the coinage. Valentinian II's position as ruler of the central empire remained outwardly the same.

The coinage, then, would accord better with my conception of the financial and political situation if the COM issue began before Gratian's death and ended sometime before Valentinian II's flight to Thessalonica in 387. How long before 387 depends upon the evidence we can derive from the coinage as to the recognition of Arcadius by the west. He is, we must remember, virtually absent from the COM issue.

In both Italy and Thessalonica we find a series of issues in which a uniform style of mint-mark, AQOB, MDOB, TESOB, is followed by the uniform mint-mark COM. The parallelism between these two widely separated parts of the empire in the course taken by their coinage is in many ways so complete that we may infer the change of mint-mark to COM to have taken place virtually simultaneously. They each in their COM issue show: (1) a great similarity of portraiture to that of their preceding issues, i.e. the issues with mint-mark formed by the abbreviated name of the mint with OB added. Cf. Pl. X. 3, 4, 6. (These preceding issues belong to the series which started with SIROB at a time in 379 when Gratian was, as shown by his unshaven features, still in

mourning for Valeus, and which may be supposed to fall as a whole in the first half of our period A. We should need then to find a coinage for the latter half, and I think that we have this in the COM issues.) (2) The inclusion of Gratian. (3) A virtual absence of Arcadius, who in each case is represented by a single coin. (4) The same change in Valentinian II's obverse style from "unbroken IVN" in the earlier to "divided I-A without IVN" in the later issue.

Thus there seems to me, both on historical and numismatic grounds, to be a good case for putting the beginning of the whole COM issue in Gratian's lifetime, quite apart from the *a priori* consideration that the uniformity observed would have been more easily attainable by him than by Valentinian II.

Can we show evidence of the persistence of the COM mint-mark into period B? We shall hardly expect to find complete agreement between the evidence from North Italy, which was controlled by Valentinian II, and the evidence from Thessalonica, which, nominally belonging to Valentinian, must have been practically under the control of Theodosius. Thessalonica, as we shall see in greater detail later, after the COM issue in which it agrees with the North Italian mints in the four points enumerated above as well as in the reverse variety "Emperors equal", follows this up without change of mint-mark by an issue (or issues) in which not only is one emperor represented as smaller, but Gratian is entirely absent and Arcadius even disproportionally predominant. This must surely be post-Gratian and must reflect the policy of Theodosius.

In the North Italian COM issue there is no such

variation of type, which continues unchanged to the end. Our evidence for the delimitation of this and of the other North Italian issues, which are equally the subject of controversy, must be drawn almost entirely (apart, that is, from the historical considerations mentioned above) from the portraiture. Arcadius, we know, is virtually unrepresented in this issue. Of Theodosius I have seen no portraits which might not date from Gratian's lifetime. But Valentinian II has two portraits, which not only seem to me to be definitely post-Gratian but clearly, in my opinion, form a connecting link with the succeeding issues.

One of these portraits has been seen by me in a single example, viz. the illustration no. 4376 of the Helbing Catalogue of 20 June 1929. It is marked especially by the zigzag line edging the vertical fold of the drapery. The features are fairly consistent in the specimens which show this arrangement of the drapery, and this style of portrait is afterwards—on the *solidi*—virtually reserved for Arcadius, whose coins with the changed mint-marks become numerous. Cf. Pl. XIV. 6, 9.

The other new portrait of Valentinian II is seen in Pl. XI. 2; of this I have seven examples. In this, the place of the double line, of which the outer is zigzagged, is taken by a single line with an outward-pointing kink. The features, again, which accompany this arrangement of the drapery are pretty consistent. This portrait is henceforth reserved for Valentinian II on his *solidi* from Mediolanum. As in it the vertical lines of the drapery are generally in rather high relief and give somewhat the appearance of a band coming over the left shoulder, it will be convenient to

denote this as the "Band", the other as the "Zigzag" portrait.

It is on the distribution of these two portraits in the various issues under discussion that I chiefly rely for numismatic support for the historical considerations stated earlier in this paper. They seem to me to furnish some evidence (1) that the latter part of the COM issue was mainly for Valentinian II alone (most of his coins and perhaps all that I have seen of Theodosius agree in details of drapery better with those of Gratian); (2) that the $\frac{A | Q}{COM}$ and $\frac{M | D}{COM}$ issues follow closely on that with $\frac{|}{COM}$ and, by giving full representation to Arcadius, suggest a change in the relations between Valentinian II and Theodosius; (3) that these issues in their turn are linked with the *Vota* issues CONCOR-DIA AVGGGΘ AQOB, MDOB. This, however, is still better shown by the portraiture of Theodosius.

VII. M.m. $\frac{A | Q}{COM}$

The emperors are equal, nimbate, and have both legs draped.

Valentinian II (2) [Pl. XI. 3]. Theodosius (4) [Pl. XII. 11]. Arcadius (4) [Pl. XIV. 5].

The portrait of Valentinian is of the "Band" variety and seems to be not far removed from that of Pl. XI. 2. The newly recognized Augustus, Arcadius, has a very similar portrait at Aquileia. The differentiation in the treatment of the drapery observable at Mediolanum is not yet attempted in this apparently earlier issue.

VIII. N.m. $\frac{M | D}{COM}$

The emperors are equal, nimbate, and have both legs draped.

Valentinian II (8; D. 4) [Pl. XI. 4, 5]. Theodosius (7; D. 2) [Pl. XII. 12, 13, 14]. Arcadius (7; D. 1) [Pl. XIV. 6, 7, 8].

Compared with VII this issue from Mediolanum must—to judge from the respective numbers—have been a long one. For my suggested arrangement of the coinage this would be very necessary, as, if we bring this issue entirely into our period B, no coinage except the very rare VOTA PVBLICA will be left for period D, i.e. the post-Maximus period. CONCORDIA AVGGGΘ, again a rare issue, will be seen, I hope, to go closely with that part of VIII which connects with the preceding COM issue and, therefore, also to come into period B. I think, then, that VIII includes both a pre- and a post-Maximus issue. Each of the three emperors has a few portraits which deviate somewhat (chiefly in the treatment of the drapery) from what we have come to consider normal for him at Mediolanum. I think it very likely, though I cannot prove it, that these fall into the later period.

Valentinian II's two portraits here illustrated [Pl. XI. 4, 5] show the treatment of the drapery seen regularly for him in one of his "new portraits" towards the end of the COM issue [Pl. XI. 2], on which, I think, Pl. XI. 3, 4 follow closely in time. The larger bust of Pl. XI. 5 follows this at some distance but still within period B.

Arcadius's portrait [Pl. XIV. 6] with the "Zigzag" drapery carries on the other "new portrait" of Valentinian II, which I was able to illustrate only

from the Helbing catalogue (cf. p. 218). It is now adopted for Arcadius, who has it on six out of my seven specimens of this issue and on all my nine specimens of his **CONCOR-DIA AVGGGΘ**.

For Theodosius I cannot find a clear connecting link between the **COM** and the $\frac{M | D}{COM}$ issues. If my belief, that Valentinian II struck little in the name of Theodosius at the beginning of his reign, is true, we should not expect to find it.

Maximus [Pl. XIV. 3] and Victor [Pl. XIV. 4] continue the portraiture of the legitimate emperors (cf. XI. 4, XII. 12) but revert to the earlier stylo of mint-mark which they had retained on their Treveran coinage.

(B) **CONCOR-DIA AVGGGΘ**.

Constantinople, helmeted, seated facing, head r., on throne, her foot on prow, holding reversed spear and shield inscribed with *Vota*.

IX. M.m. **AQOB**

Shield inscribed **VOT X MVLT XV**

Valentinian II (1) [Pl. XI. 6]. Theodosius (1) [Pl. XIII. 1].

Th's portrait of Valentinian II is unknown to me elsewhere on his *N* or *R*. There is a ? unique **Æ 4 VOT X MVLT XV SMAQ** of his at Copenhagen with divided obverse legend and a rather similar portrait to that found here with **AQOB**.

The portrait of Theodosius, while bearing a sufficient resemblance in features and treatment of drapery to one of his $\frac{A | Q}{COM}$ coins to allow us to date them together, yet certainly does not irresistibly suggest it.

I hope to find much stronger support in the companion issue from Mediolanum.

X. M.m. $\overline{\text{MDOB}}$

- (a) Shield inscribed VOT X MVLT XX
Valentinian II (1) [Pl. XI. 9]. Theodosius (1)
[Pl. XIII. 3].
- (b) Shield inscribed VOT X MVLT XV
Valentinian II (5; D. 1) [Pl. XI. 7, 8]. Theodosius
(1) [Pl. XIII. 2].
- (c) Shield inscribed VOT V MVLT X
Theodosius (1; Santamaria Cat. 24 Jan. 1938, no.
1026). Arcadius (9) [Pl. XIV. 9].

We have here enough specimens of Valentinian II in X (a) and (b) and of Arcadius in X (c) to justify us in asserting that the differentiation between the two emperors observable in a portion of the VICTOR-IA AVGG $\frac{\text{M}|\text{D}}{\text{COM}}$ issue is a marked feature of the whole of the CONCOR-DIA AVGGGΘ *Vota* issue. The portraiture of Valentinian II is throughout of the "Band", that of Arcadius throughout of the "Zigzag" variety.

Comparing the Valentinian II of Pl. XI. 4, 7, the Theodosius of Pl. XII. 13, XIII. 2, and the Arcadius of Pl. XIV. 6, 9, are we not compelled to synchronize within fairly narrow limits this "*Concordia*" issue with that part of the "*Victoria*" issue which shows the similar portraiture? Can we believe that they are separated even by so much as the one year of Maximus' control of the Italian mints? One distinguished authority certainly so separates them, another places them together indeed, but after the fall of Maximus in August 388. Both agree in making the *Vota*-issue post-Maximus. The eastern emperor has won back the west from the usurper in the year in which he

himself is celebrating the completion of his first decennial vows. He signalizes his victory by striking in the western mint his own purely eastern type inscribed with the *Vota*-numbers appropriate to himself, with a companion issue commemorating the first quinquennial vows of his son Arcadius. This is attractive; it accords quite well with the political situation. The Θ at the end of the reverse legend would at Constantinople have denoted the *officina*, but this cannot be the case at Mediolanum, and it has been explained as the initial letter of Theodosius' own name. The restoration of the comfortable "Harmony of the three Augusti" was purely his work, and he might with complacency append his signature to the settlement.

Yet I cannot help feeling a little uneasiness at this dating, not so much that Theodosius should choose such an ambiguous method of showing that he was "restoring to Valentinian II all his father's previous empire" as because Arcadius had celebrated his first *quinquennium* in 387, as Zosimus tells us, and had started his second *quinquennium* on 19 January 388. Our issues IX, X (a) (b) (c) must surely form a group, rather severely limited in time, and the numbering of the *Vota* commemorated should be consistent within that time. I cannot see, then, how the group can be dated later than 18 January 388, for on the next day Arcadius would be in his second *quinquennium* and his *Vota*-coins would, until Theodosius entered on his third *quinquennium* on 19 January 389, bear the same numbers as his father's.

It is evident that the distinguished numismatists, whose views I have just quoted, think differently

from myself on this question of *Vota*-numbers. It is time the question was settled, if it can be settled.

I feel compelled, then, to date these *Vota*-coins to period B, where that part of the VICTOR-IA AVGG $\frac{M|D}{COM}$ issue, which is connected with them by the portraiture, has already been placed on different grounds.

Perhaps it may seem a waste of time to attempt at present to build further on foundations of doubtful solidity, the dating of the "Concordia" issue and the exact implications of the *Vota*-numbers being matters of dispute. But I must try to show how I think this eastern type may without too great violation of historical probability have been introduced into a western mint. No doubt both Theodosius and Maximus were felt as a danger by Valentinian II, but the former probably as a threat to his independence only, the latter as a threat also to his throne. We see clearly in the other coinage of Valentinian II a very significant change in the recognition accorded to Arcadius, and perhaps this imitation of an eastern type is only another and a more pronounced "gesture" accompanying his enforced *rapprochement* with Theodosius.

Assuming, as we seem compelled to assume, that issues IX and X form a connected group, we find that we have only two sets of *Vota*-numbers for the three emperors. Either each emperor has his appropriate *Vota*, in which case the completion of Valentinian II's *decennium* on 24 November 385 would limit the whole group to that date, or Valentinian contents himself with reverses commemorating the *Vota* of his eastern colleagues. Judging from the predominance

given to Arcadius in the issue, I am inclined to date it at the beginning of 387 when Arcadius was entering on the final year of his first *quinquennium*.

There is an issue of *siliguae* from Mediolauum bearing similar votive numbers X-XX for Valentinian II (16 specimens), Theodosius (14), and V-X for Arcadius (20). The drapery of Valentinian and Theodosius is chiefly of the two varieties described above, the "Band" being commoner for Valentinian, the "Zigzag" for Theodosius; that of Arcadius is always of the "Zigzag" variety. But Valentinian has also a variety which is not uncommon for Maximus and is (so far as I know) universal for Victor on their silver of Mediolanum, viz. with the lines (on the right of the coin) all converging inwards to a point on their left shoulder. If the *A* and *At Vota*-coins are contemporaneous, as portraiture as well as *Vota*-numbers strongly suggest, this variety of drapery is a link connecting them both with the year which witnessed the celebration of Arcadius's quinquennial vows and the occupation of Italy by Maximus.

(C) VOTA-PV-BLICA

Obv. Bust l., pearl-diademed and draped in triumphal robes, holding in raised r. hand a *mappa* and in l. a short sceptre.

Rev. Two emperors, nimbate, draped in triumphal robes, seated facing, each holding in raised r. hand a *mappa*. The emperors are either (a) equal, each holding a long sceptre in l. hand or (b) emperor on l. smaller, each holding a globe in l. hand.

XI. M.m. $\frac{M \mid D}{COM}$

The emperors are equal and each holds sceptre in l. hand.

Valentinian II (2). Theodosius (1).

XII. M.m. $\frac{M | D}{COM}$

The emperor on l. is smaller and each holds globe in l. hand.

Valentinian II (1) [Pl. XI. 10].

I can get no help from the portraiture of Valentinian II for a relative dating of these two issues, but a special significance must underlie the very unusual reverse of XII. In other cases when emperors of different sizes are represented as seated together the place of honour on the right (i.e. numismatic left) is occupied by the older and bigger. Here Valentinian II in his place as Senior Augustus symbolizes his weakness and his dependence on his older colleague by representing himself as a boy by his side.

There can be no doubt, I think, that XI and XII refer to separate occasions, and if those occasions are consulates, such as this type is usually understood to commemorate, then of Valentinian II's two later consulates, in 387 and 390, the reference may well be to the former. I have tried to show above that there is other evidence in the coinage of a *rapprochement* with Theodosius in 387, and a *rapprochement* on Valentinian's side could take the form only of an accepted protectorate.

If we reverse the order of the issues and refer XII to the consulate of 390, when Valentinian II was in Gaul, the striker would be Theodosius. But I doubt whether after the post-Maximus settlement he would have expressed his appreciation of the political situation in this manner.

One of these two issues must coincide with an issue of like type from Treveri with mint-mark $\frac{T | R}{COM}$. This

is found for Valentinian II alone and can refer only to his consulate of 390. In this we have the normal rendering of the "one emperor smaller" variety, with the smaller figure on the (numismatic) right. It is difficult to be certain of the historical implication here and I refrain from guessing. Incidentally we see from the occurrence of the type simultaneously at two widely separated mints that the mint-mark cannot always be a safe clue to the place where the emperor entered upon his consulship.

Lately Alföldi has pointed out that the "raised r. hand, holding *mappa*" represents the emperor as presiding at the games and so is more appropriate to the celebration of quinquennial vows than of a consulate. On either view XI could be placed in the year 390, but 387, the date suggested for XII, neither begins nor ends a quinquennial period of Valentinian II. Engenius, who reigned only two years, has the type, which in his case could refer only to the taking of his *Vota*. I have no knowledge that games were such a prominent feature of that ceremony that they would determine the portraiture given to the emperor on his coinage. Until I am assured of this, I see no need to alter the dating assigned tentatively to XII.

Summary of the North Italian gold issues.

Period A (January 379–August 383). The issues of VICTORIA AVGG with mint-marks AQOBF, AQOB, MDOB are represented by numbers too scanty to correspond with the financial needs of the whole period, and the occurrence of Valentinian II's name only in his earlier style suggests that they were confined to the earlier part of it. That the continuation

of the type with COM began in period A is suggested by the above consideration of numbers as well as by the many coins of Gratian which would naturally date themselves to Gratian's reign. We should, also, expect a gold issue showing, like the silver and bronze, the later style of Valentinian II's name.

Period B (August 383–May 387). Certain portraits of Valentinian II in the COM issue seem clearly to be post-Gratian and to fit closely on to the succeeding $\frac{A | Q}{COM}$, $\frac{M | D}{COM}$ issue. In this latter issue Arcadius is well represented; in the COM issue he is ignored. The COM issue, then, must have covered a time when the relations between Valentinian II and Theodosius were strained. Whether the change in these relations coincided or not with the change of mint-mark, the latter part of the $\frac{M | D}{COM}$ issue in period B certainly corresponds with the eastern type CONCORDIA AVGGGΘ, which seems to commemorate the initial celebration of Arcadius's first quinquennial vows in January 387. I should thus date to period B the latter part of the COM, the pre-Maximus part of the $\frac{M | D}{COM} \left(\frac{A | Q}{COM} \right)$, and the whole of the "*Concordia*" Vota issues. This arrangement differs from any previously proposed, but it appears to me to be supported by the evidence of the portraits.

Period D (August 388–? 391). As VICTORIA AVGG with mint-mark $\frac{M | D}{COM}$ is struck by Eugenius (393–394), no doubt the type was resumed by Theodosius after the defeat of Maximus and continued at least until his departure for Constantinople in 391.

Most of the VOTA PVBLICA coins also probably fall within this period.

II.

THESSALONICAN ISSUES.

A. ISSUES WITH ONVERSE BUST DIADEMED, DRAPED AND CUIRASSED R.

Thessalonica belonged to the western empire, but it was the head-quarters of Theodosius for a year and a half at the beginning of his reign and his influence afterwards must have been as strong there as he cared to make it. But, as I have tried to show elsewhere, it did not, during his lifetime, formally sever its theoretical connexion with the west. The mint-marks COM and its successor, COMOB, seem to be the signature of a purely western official, the *Comes auri*, and to show that the mint using it was, in name at least, under his control. How merely nominal this control was will be seen by the rapid divergence of the coinage struck at Thessalonica from the spirit of that struck under the personal inspiration of the western emperors.

My evidence is much less abundant for this part of my paper, and I have no hopes of being able to trace in detail the course of the coinage either to my own or to anybody else's satisfaction. Many important links are missing. But the scantier the evidence the greater the obligation to bring forward the little we have succeeded in finding.

(A) VICTOR-IA AVGG

- I. VICTOR-IA AVGG Two emperors seated. They are not nimbate and have the left leg bare.
M.m. TESOB

The obverse bust is pearl-diademed here and elsewhere, unless otherwise stated.

(a) Emperors equal.
Gratian (11; D. 2) [Pl. X. 7]. Theodosius (4; D. 1)
[Pl. XIII. 4].

(b) One emperor smaller.
Gratian (1) [Pl. X. 8]. Valentinian II with *obv.*
legend "unbroken" IVN (8; D. 1) [Pl. XI. 11, 12].

II. GLORIA-REIPVB Two emperors, seated, holding
globe between them, as in the *Victoria Augg* type,
but the Victory behind them holds a wreath over
the heads of both. They are equal, not nimbate,
and have the left leg bare. M.m. TESOB
Gratian? (I have no specimen). Theodosius (1)
[Pl. XIII. 5].

III. VICTOR-IA AVGG Varies from all other issues
of this type in that the emperor on the left has his
right leg bare. Otherwise as I. M.m. THCOB
Valentinian II with *obv.* legend "unbroken", not
IVN (1). Theodosius (2, identical) [Pl. XIII. 6].

These are the only Thessalonican issues of our
period in which the name of the mint is given on the
coins. That the following issues with mint-mark
COM are also from Thessalonica can be inferred with
certainty from the typical Thessalonican portraits at
first, and then, when the connexion of COM with
Thessalonica has been established, from the mint-
mark itself in combination with the reverse variety
"l. leg bare", which at this time was not found at any
other mint. But even in the portraits which clearly
show the workmanship of Constantinople the typically
Thessalonican two dots just above the fibula on the
right shoulder—making three with the dot in the angle
formed by the meeting outside lines of the drapery—
would in themselves serve to identify the mint. They
are very rarely absent. A single outside dot is, I think,
invariably found in the portraits coming directly from
Constantinople during the whole of this period.

Issue I takes its place in the series which began with SIROB and probably was struck in 379. There is very little variety of portrait and, to judge from the number of my specimens, it was a large issue.

Issue II, on the other hand, must have been very small, as coins of it are very rare. PL. XIII. 5 does not show the "two dots", but evidently follows the same model as issue I, from which it would seem to be not far removed in time. Its unique type was probably prompted by some success, which we cannot identify, gained by Theodosius in the Gothic war.

I can only point out the difficulties of issue III and I have no clue to their solution. It represents the current western type, but with Theodosian variations in the drapery of the seated emperors and in the form of mint-mark. The obverse portraiture is purely Constantinopolitan and has a fairly close resemblance to that on some specimens of Gratian in the first, the "Turreted", variety of the CONCOR-DIA AVGGG CONOB series, struck, apparently, by Theodosius soon after his entry into his capital at the end of 380. The absence of Gratian from issue III may well be accidental. The other two emperors are represented by "unique" specimens, though Theodosius has come down to us in two coins from the same dies. The omission of IVN in Valentinian's *obv.* legend, contrasting with its inclusion in I (b) and in the second issue—CONCOR-DIA AVGGG "Helmeted" variety—at Constantinople (where it occurs with division I-A in his name) seems to bear out what we should infer from the evidence of the Gallic and Italian mints, viz. that uniformity was not insisted on

by the authorities and that, therefore, this detail is of little or no help for dating.

No doubt issue III comes before the following issue in which the mint-mark is COM and which shows a complete reversion to Thessalonican portraiture and the normal *Victoria Augg* type.

Valentinian II and Arcadius have "broken" *obv.* legends, the former without IVN.

- IV. VICTOR-IA AVGG As in issue I(a) except that the two emperors are now nimbate. The retention of the detail "left leg bare" is peculiar to Thessalonica.

M.m. COM

Gratian (2) [Pl. X. 9, 10]. Valentinian II (3) [Pl. XI. 13]. Theodosius (3) [Pl. XIII. 7, 8]. Arcadius (D. 1) [Pl. XIV. 10]. (Pl. X. 9 and XIII. 7 have reverse identity.)

- V. VICTOR-IA AVGG As IV.

M.m. COM

Valentinian II (3; D. 1) [Pls. XI. 14; XII. 1]. Theodosius (1) [Pl. XIII. 9]. IV and V are linked by Theodosius's portrait [Pl. XIII. 8, 9.]

- VI. VICTOR-IA AVGG As IV and V, but with one emperor smaller.

M.m. COM

Valentinian II (1; D. 1) [Pl. XII. 2]. Theodosius (3; D. 1) [Pl. XIII. 10, 11]. Arcadius (5) [Pl. XIV. 11, 12].

- VII. VICTOR-IA AVGG As VI.

M.m. COM

Obverse with rosette diadem.

Valentinian II (2) [Pl. XII. 3]. Theodosius (1) [Pl. XIII. 12]. Arcadius (4) [Pl. XIV. 13, 14].

Some portraits of VI and VII show a clear connexion with the following COMOB issue and suggest a sudden change from the western type of Valentinian II to the

eastern type of Theodosius. Are the portraits of IV, the only issue in which Gratian appears, a satisfactory clue to the beginning of the issue at Thessalonica? There can be no doubt that the adoption of the mint-mark COM at Thessalonica falls within the period during which this was the recognized mint-mark for the western empire. But this period itself has been variously placed entirely before, or entirely after, Gratian's death, or, as I suggested on the evidence of the North Italian coins, partly before and partly after, and there is no necessity to equate the beginnings of the mint-mark in North Italy and in Thessalonica, though, of course, they may have coincided. Certainly the end at Thessalonica is shown by the foregoing analysis of my evidence to have come long after Gratian's death.

After Gratian's death Thessalonica and Siscia passed for a while under Theodosius's military control and he struck his own types there. It seems unlikely that the western *A* type and mint-mark should have first appeared by the side of his purely eastern *Æ* and, even if we could suppose this, the supposition would at once be shown to be untenable by the position of Arcadius in the two denominations—secure in the bronze but very grudgingly accorded to him in the gold.² The COM issue, then, cannot have begun after Gratian's death, just as surely as the preponderant numbers for Arcadius in the later variety show that it cannot have ended before his death.

To turn now to the portraits. Valentinian II has changed his obverse style from that seen on the

² The only example known to me for him is that in the Dortmund Find.

TESOB coins. He still [Pl. XI. 13, 14] has the uncommonly features of the normal Thessalonican tradition, but with a larger bust. Theodosius [Pl. XIII. 9, 10] shows two portraits, of which the larger makes a passably good connexion with his TESOB portrait. But one [Pl. X. 9] of Gratian's two portraits seems so strikingly close to that of Pl. X. 7 that it cannot be separated from it by such a long interval as a "post-humous" origin would necessitate.

While satisfied in my own mind, from the evidence of the coinage of both North Italy and Thessalonica, that the COM series originated with Gratian and lasted for a considerable time after his death, I am quite unable to suggest definite occasions for the various issues from Thessalonica. These issues may have been more numerous than my list implies. Such widely different portraits as those of Pls. XII. 2, 3; XIII. 11, 12; and XIV. 11, 12, 13, though coming under the same heading, may well be separated in time. On the other hand, $\overline{\text{COM}}$ and $\overline{\text{COM}}$ are linked rather than separated by the two portraits of Theodosius [Pl. XIII. 8, 9]. It is true that coins of Gratian are rarer than those of either Valentinian II or Theodosius, but, as we find his name erased and that of Theodosius substituted for it on a *solidus* of Constantinople dated by its reverse to Gratian's lifetime, we need find no difficulty in supposing that Thessalonica, under the influence of Theodosius, struck little for its own emperor during the period of estrangement. So the inference that the COM issue started very shortly before Gratian's death, while plausible and very possibly correct, may be mistaken after all.

During all the years over which I think the various COM issues extend, Thessalonica was not an imperial residence, and we cannot connect them with the actual presence there of Theodosius. But roving bands of Goths must have been a constant menace and the expenses of "policing" Illyricum were probably met by constant small issues of coinage from Thessalonica. Theodosius alone seems to have been responsible throughout for the defence of this part of the western empire, and it may be presumed that he authorized these issues. Meanwhile, the needs of his own eastern empire must have been adequately met by his extensive "*Concordia*" (CONOB) coinage which is represented in my collection (of casts) by ninety-seven for the period between November 380 and August 383, and by one hundred and fourteen for that between August 383 and the temporary closing of the mint of Constantinople after the issue commemorating the final year of Theodosius's first *decennium* and presumably struck in preparation for the struggle with Maximus.

The portraiture of these issues IV-VII varies considerably. In VI, Pl. XIV. 12 is certainly out of place among the small ngly portraits which come under the same reverse heading. It seems to show a much improved, but still "Thessalonica", style as is shown by the drapery. It passes into the following COMOB issue from which the nglier-featured portraits seem to be absent.

The most remarkable issue is VII with its rosette-diademed busts³ and a complete change of style in

³ As the siliquae, VOT/X/MVLT/XX TES[Pl. XV. 11-14],

both features and drapery, though all my examples but one [Pl. XIV. 14] retain the Thessalonican "two dots", which I have never seen on a coin of Constantinople. I suspect the influence, if not the actual handiwork, of Constantinople here. In the next period the actual handiwork of Constantinople will be apparent. The features usually, the "two dots" of the drapery almost always, the G with hanging tongue always, I think, serve to distinguish the products of the two mints. All my illustrations to issues IV-VII show the Thessalonican G. I have failed to find a single instance of it among nearly two hundred coins of Constantinople, on which G is generally indistinguishable from C.

(B) CONCORDI-AAVGGG

VIII. CONCORDI-AAVGGG Constantinople, helmeted, seated facing, on throne adorned with lions' heads, and holding partly seen spear and globe. Her r. foot on prow. M.m. COMOB

A. 1. *Obv.* bust rosette-diademed.

Valentinian II (4) [Pl. XII. 4]. Theodosius (not yet found). Arcadius (1) [Pl. XV. 1, 2].

2. *Obv.* bust pearl-diademed.

Valentinian II (1) [Pl. XII. 5]. Theodosius (2) [Pl. XIII. 14]. Arcadius (3) [Pl. XV. 3].

show, the two styles of portrait are already combined at the time of their striking, and should give a clue to the date of change of type and mint-mark on the *solidi*, which the rosette-portrait bridges. In the "*Concordia*" *Vota* issues of North Italy Arcadius has such a great predominance that the *Vota* here also may be taken tentatively to be his, and the coins to have been struck at the completion of his first *quinquennium* on 18 Jan. 388. The COMOB *Vota* type with XV-XX, though not yet found with the rosette portrait for Theodosius, may still be his and the coins tentatively dated early in 389. The change of type and portrait would thus be connected with the change in the position of Valentinian II caused by the invasion of Maximus and the resulting resettlement of the empire by Theodosius.

B. 1. *Obv.* bust rosette-diademed.

Theodosius (2; one is the Trau Catalogue no. 4397, which has *obv.* identity with a Sirmium coin

VICTOR-IA AVGG $\frac{S | M}{COMOB}$) [Pl. XIII. 13].

2. *Obv.* bust pearl-diademed.

Arcadius (5) [Pl. XV. 3, 4, 5]. (a) Honorius (*sic*)

(1) [Pl. XV. 8]. (b) Honorius (1). [Pl. XV. 9.]

[I take no further notice, beyond mentioning it here, of a coin of Honorius showing a cross on his breastplate, Pl. XV. 10. It must fall outside the reign of Theodosius I. I have seen no coin of any other emperor matching it.]

IX. CONCORI-AAVGG (*sic*). This is a blundered version of VIII.⁴ It is otherwise precisely similar and is not barbarous.

Obv. bust is pearl-diademed.

Honorius (*sic*) (2 with identical *rev.* but not *obv.*)

One of the obverses [Pl. XV. 7] has identity with

a Sirmium coin VICTOR-IA AVGG $\frac{S | M}{COMOB}$.

X. CONCORDI-A AVGGG Constantinople as in VIII-IX except that (1) the throne is not ornamented with lions' heads, and (2) she holds, instead of globe, a shield inscribed with *Vota*.

M.m. $\frac{COMOB}{}$

(a) Shield inscribed VOT/XV/MVLT/XX

1. With *obv.* bust rosette-diademed.

Valentinian II (2) [Pl. XII. 6].

2. With *obv.* bust pearl-diademed.

Theodosius (1) [Pl. XIV. 1].

⁴ AVGG coming between two issues showing AVGGG would, of course, be applicable only to the period between the death of Valentinian II and the elevation of Honorius. But it occurs with the name of Honorius here and (with obverse identity) with m.m.

$\frac{S | M}{COMOB}$ and with the correct spelling of his name with m.m.

$\frac{S | M}{COMOB}$

- (b) Shield inscribed VOT/X/MVLT/XV
With *obv.* bust pearl-diademed.

Arcadi-us (1. The m.m. is COMO but the coin is not barbarous). [Pl. XV. 6.]

In this analysis of the evidence that I have collected for this COMOB issue, I have made no attempt at an ordered sequence beyond separating VIII into A and B, the coins under A seeming to carry on the portraits at the end of the superseded COM issue, as I have tried to show above by reference to my illustrations, while those under B, besides having a new portrait, actually connect by two die-identities with the new type VICTORIA AVGG (later AVGGG) "Emperor trampling on captive". Clearly the Thessalonican mint-personnel was transferred to Sirmium, where this coinage was first struck in preparation for the impending campaign against Eugenius. However, the mint-personnel of Constantinople combined with them even in the first issue with AVGG, though to no great extent (of my ten examples two show their work), but thenceforth are responsible for all the remainder of the issue. With this, the story of the Thessalonican mint in the reign of Theodosius I ends, unless Pl. XV. 9, in which Honorius has larger bust and correct obverse legend, suggests that on its return from Sirmium our CONCORDIA AVGGG series was continued for yet a little while.

I have spoken above of the rosette-diademed busts which are one of the links joining COM and COMOB, and suggested that their inspiration came from Constantinople. In the COMOB issue, Valentinian II's coin of this "rosette" variety, illustrated on Pl. XII. 4, has a purely Constantinopolitan reverse complete with

G and *officina* letter. If I am right in taking this variety to mark the beginning of the COMOB series, the occurrence of Valentinian's *Vota*-coin XV-XX with a bust of this description may give a clue to its date. Such *Vota*-coins seem usually to have been struck at the time of the taking or the payment of the vows. If the *Vota* are Valentinian's, the coin could refer only to their payment and would then probably, though not necessarily, be dated between 25 November 389 and 24 November 390. But, of course, they may be Theodosius's. It could then only refer to their taking and would probably, though not necessarily, be dated between 19 January 389 and 18 January 390. We must remember that the *A* (*solidus*) coinage of Constantinople takes no notice of Valentinian's *Vota*.

The *Vota*-coin of Theodosius appears to exist in the single specimen illustrated in Pl. XIV. 1. The *Vota* are almost certainly his own and if the portrait is held to be of what I called the "improved Thessalonican" type, which also is a link with COM, this coin is important evidence for the date of the change to COMOB.

There remains the *Vota*-coin of Arcadius [Pl. XV. 6]. It could be dated at any time between 19 January 388 and 18 January 393, but most probably would be struck near one of the extremes—I think between 19 January 388 and 18 January 389.

I do not know what to say about the coin of Theodosius [Pl. XIV. 2] with *Vota* X-XX. The portrait is neither Thessalonican nor Constantinopolitan. The G's are Thessalonican, but the *officina* letter is Constantinopolitan and the mint-mark is CONOB. I am

not inclined to accept it as evidence for the COMOB series.

One thing is clear. The coinage at Constantinople ends with *Vota*-coins with X-XV for Theodosius, V-X for Arcadius (whose few X-XV refer to his father's vows). The issue was a large one, necessitated by the impending war with Maximus. It is in Thessalonica that we find the continuation of the votive series in the extremely rare or unique specimens which suggest the scanty issue of a time when the danger was overpast. At Milan the coinage seems to have been equally restricted during this time. The next large issue was from Sirminm for the struggle with Eugenius.

The occasion, if not the precise moment, of the transference of Theodosius's financial base in the east from Constantinople to Thessalonica, seems to be beyond doubt, viz. the war with Maximus. But the scantiness of the coinage suggests that the precise moment was not before the conclusion of the war.

It may be noticed that I have based no argument on the presence or absence of "lions' heads" on the throne. At Constantinople they disappear at the end of the year in which Theodosius completed his first *quinquennium*, the year of Gratian's death. Honorius came to the throne ten years later, but the lions' heads still appear on his coins, as on all previous "*Concordia*" coins of Thessalonica except those inscribed with *Vota*. It is quite impossible to date the introduction of this type at Thessalonica to a time when the "lions' heads" variety was in use at Constantinople and the distinction can have no importance for us.

Summary of the Thessalonican gold issues.

The evidence is too confused for me to have at present any very strong convictions as to the precise course of these issues. Although the mint, as the mint-marks show, was never claimed by Theodosius, it was from the first under his control and certainly after Gratian's death, if not before, the eastern emperors receive here fuller recognition than the western.

I see no reason to take the very rare coins of Gratian with VICTORIA AVGG $\overset{\cdot}{\text{COM}}$ "Two emperors equal" as posthumous, and I should place this issue in period A. But its continuation with "one emperor smaller" and with Arcadius predominant must certainly fall within period B. Gratian is entirely absent here. The diversity of portraiture suggests a succession of issues, the final portraits leading on without a break to the Theodosian type CONCORDIA AVGGG with the mint-mark—still western—COMOB. New *Vota*-numbers appear with what I think are the earliest portraits of this new type, and they suggest to me that the change of type came in the settlement after the defeat of Maximus. Little gold seems to have been struck either in North Italy or in Thessalonica during the residence of Theodosius at Milan, but with the renewal of activity following the accession of Honorius a new variety of the Thessalonican portraiture meets us, and this marks also (by obverse die-identities) the beginning of the great Sirmian issue in preparation for the war with Eugenius. But, even in the first stage of this issue, coins of pure Constantinopolitan workmanship are found, and all

the succeeding stages show no trace of Thessalonica. However, the larger bust of Honorius [Pl. XV. 9] with the correct spelling of his name suggests that the Thessalonican moneyers on their return from Sirmium may have struck another and final issue of *Concordia Augg* with mint-mark COMOB, and obverse bust "diademed, draped, and cuirassed r." The "helmeted obverse" variety must, I think, fall outside the reign of Theodosius I. Still, as here also, there is a diversity of opinion, I feel that I must bring forward the scanty evidence for it which I possess.

B. ISSUES WITH HELMETED OBVERSE.

The *N Concordia* type with obverse bust helmeted, facing.

While the new VICTORIA AVGGG "Emperor trampling on captive" is universal in the west with a uniform series of mint-marks based on the $\frac{S \mid M}{COMOB}$ with which it started, Thessalonica continues to strike a Constantinopolitan *Concordia* type, but still with the western mint-mark COMOB, varied, or rather superseded, by TESOB—the latter being at this time evidence of a closer union with the eastern, and a marked divergence from the western system. In these issues the seated figure of the reverse bears in her left hand, as at Constantinople, a Victory on globe instead of a simple globe.

From Constantinople itself we have:

I. CONCORDI-A AVGG A [A standing here and below for any *officina* letter from A to I].

(a) M.m. \overline{CONOB} Arcadius. Honorius.

(b) M.m. $\frac{* \mid}{CONOB}$ Honorius. Theodosius II.

II. CONCORDI-A AVGGG A

(a) M.m. $\overline{\text{CONOB}}$ Honorius. Theodosius II.(b) M.m. $\frac{*}{\overline{\text{CONOB}}}$ Honorius. Theodosius II.

There were two Augusti between the death of Theodosius I on 17 January 395 and the elevation of Theodosius II on 10 January 402. From then to the death of Arcadius in May 408 there were three Augusti, after which date there were again two only. Until the issues following immediately on the accession of Honorius the legends with this *Concordia* type have indicated accurately the number of the recognized Augusti, and, indeed, the AVGG which marked the absence of Valentinian II in those issues was soon corrected to AVGGG to include the new emperor. Yet in the series II(a) and (b) from Constantinople, the two issues with AVGGG are found (and in fairly large numbers) for two Augusti only. The only period they might seem to suit is 402-408, and yet Arcadius, the senior emperor and the possessor of the mint, is conspicuously absent. I am quite at a loss to explain these issues unless the legend can be taken to include the masterful Augusta, Pulcheria, who received the title on 4 July 414.

I have quoted the Constantinopolitan issues only for the sake of comparison and contrast with the Thessalonian which have a precisely similar reverse type.

From Thessalonica we have:

A. Obverse marked by P on the cuirass.

I. CONCORDI-A AVGG

M.m. $\overline{\text{COMOB}}$ Arcadius (2). Honorius (3).

II. CONCORDI-A AVGGG

(a) M.m. $\overline{\text{COMOB}}$ Arcadius (1). Honorius (1).

(b) M.m. $\frac{* |}{\text{COMOB}}$ Arcadius (1). Honorius (1, Larizza Sale, 18 June 1928, lot 754).

The very distinctive **P** of the obverse (the portraits themselves in this helmeted variety are indistinguishable) would seem to mark these issues as immediately successive to one another, just before and just after the elevation of Theodosius II. The inclusion of Arcadius among the three Augusti of the extremely rare issue II makes it certain, to my mind, that he is not one of the three Augusti of the fairly common Constantinopolitan issue, in which no coins with his name appear.

B. In the shield of the obverse is a Victory.

(a) holding wreath in either hand.

III. CONCORDI-A AVGG

M.m. $\frac{* |}{\text{COMOB}}$ Theodosius II (1, British Museum).

(b) standing on prow, holding wreath in r. hand and resting l. on shield (as in *Constantinopolis* type).

IV. CONCORDI-A AVGG

M.m. $\overline{\text{TESOB}}$ Honorius (1, Trau Cat. 4648).
Theodosius II (1, Allotte de la Fûye Sale, 5 May 1925, lot 524).

On all the **CONOB** coins quoted above and on the **COMOB** coins of issues I and II, a horseman galloping to the right (with or without what seems to be a prostrate enemy beneath the horse) is the invariable adornment of the shield held by the emperor of the obverse. The Victory in issues III and IV (and in V below) and the general ornamentation of the cuirass,

while not absolutely coinciding in the two issues, yet link them together and show beyond doubt, I think, that the mint of Thessalonica, which for so long has signed with the western mint-mark **COMOB**, now openly aligns itself with the **CONOB** of the eastern empire. The two Augusti of the legend must determine the date as subsequent to the death of Arcadius and previous to the elevation of a third Augustus or (?) Augusta. It will be the same as that of our Constantinople issue Ib and of the $\mathcal{A}E$ 3-4, **GLORIA ROMANORVM** "Two emperors standing, each holding spear and shield", found with mint-mark **TESA** for Honorius and Theodosius II. As at Constantinople, so at Thessalonica **AVGG** is followed by **AVGGG**.

(c) holding wreath in r. hand and with l. dragging captive r. Apparently **P** before her.

V. CONCORDI-A AVGGG

M.m. $\frac{*}{TESOB}$ | Honorius (1, Naville Cat., 2 July 1930, lot 1973).

The four coins, which are all the evidence known to me for my issues III, IV, and V, are known to me, in the case of three of them, only from photographic illustrations in sale catalogues. I have certainly until recently given less attention to the later than to the earlier coinage of the House of Theodosius, and there may well be evidence of which I am ignorant. But until this is forthcoming and shows my views to be untenable, I am convinced that the coins with helmeted obverse are later than the death of Theodosius I, and I believe their course to have been as set out above, and so to mark stages in the gradual appropriation of a western

territory by the east. Later issues at Thessalonica have always, so far I know, **TESOB**, a form of mint-mark, which in the fifth century is peculiar to the east.

There is one issue, seemingly the first of the "helmeted obverse" series, which I have passed over as irrelevant to my argument. It is the **VOTAP-LVRIA** of Arcadius, with helmeted obverse and reverse type "Two nimbate emperors seated facing, holding up shield inscribed **VOT/XV/MVLT/XXII**, mint-mark **COMOB**. On the strength of the *Vota*-numbers, I suppose this to have been struck between 19 January 397 and 18 January 398. I mention the coin for the sake of completeness.

J. W. E. PEARCE.

XIII.

RECENT ADDITIONS TO THE COLLECTION OF BARBAROUS ROMAN "RADIATES" IN THE BRITISH MUSEUM.

[SEE PLATE XVI.]

For some years past it has been becoming increasingly clear that the barbarous "radiates" in the West of Europe offer a problem as difficult and thorny as it is eminently worth solving. The attempt is accordingly being made to gather in the National Collection as many as possible of these curious little relics of dark periods—wherever feasible, with note of find-spot. The selection of recent acquisitions in this paper is a chance one and settles no problems. It is designed rather to advertise the material and to encourage local collectors to pay closer attention to the barbarous coins that turn up in their respective districts.

1. *Obv.* . . . VDIVS AVG. Bust of Claudius II, radiate, draped r.

Rev. . . . NSECRA TIV Lighted altar, with garland.

Æ 0.7 in., 32.4 gr. (2.10 grm.). Prototype, M. & S. (Webb) v, 1, p. 233, nos. 259 ff. (C. 50 ff.). Note the life-time title, [IMP CLA]VDIVS AVG for DIVO CLAVDIO, the mis-spelling of CONSECRATIO and the curious shape of altar. [PL. XVI. 1.]

2. *Obv.* DIV . . . Bust, radiate, draped (?), r.

Rev. . . . IIC Male figure, in short tunic, standing l., extending r. hand and holding vertical sceptre in l.

Æ 0.65, 13.9 (0.9). No certain prototype. The DIV[o] suggests Claudius II, and, if this is right, our coin is

a very barbarous imitation of one of the rather rare issues with reverses other than **CONSECRATIO**. (M. & S. v, 1, pp. 234 ff., nos. 263 ff.)

3. *Obv.* IMP C VICTORINVS P A VG. Bust, radiate, draped r.

Rev. IO V A X A V Pax standing l., holding branch in raised r. hand and transverse sceptre in l.

Æ (traces of silvering) 0.85, 48.7 (3.16). Prototype, M. & S. v, 2, p. 397, nos. 116 ff. (C. 83 ff.). Note the unusual, but not unformed, style, the two stars for star or V-star and the blundered legend (PAX AVG?) on reverse. [Pl. XVI. 2.]

4. *Obv.* GALLIEN[VS] AVG Head, radiate, r.

Rev. . . . LOVA I D . . . AC Aequitas standing l., holding scales in r. hand and cornucopiae in l. [Pl. XVI. 3.]

Æ 0.9, 49.4 (3.2). Prototype, M. & S. v, 1, p. 144, no. 159 (C. 20 ff.). Barbarous imitations of Gallienus are, relatively speaking, uncommon. Note the rough, but vigorous style and the meaningless reverse legend.

5. *Obv.* . . . OMNPOVTID: dots. Bust, radiate, draped l.

Rev. Vague traces of letters. Hercules, naked, standing l., holding branch in r. hand and club and lion-skin in l.

Æ 0.7, 35.2 (2.28). The style of the coin is remarkable and not easy to parallel. The reverse is naturally referred to **HERC PACIFERO** of Postumus, M. & S. v, 2, p. 342, no. 67 (C. 101, 2); but, in that case, the obverse has travelled far from its model. Found at Richborough Castle. [Pl. XVI. 4.]

6. *Obv.* LAHIIIOIITINDII. Bust, radiate, draped r.

Rev. AN. Mars advancing r., holding spear in r. hand and trophy over l. shoulder in l.

Æ 0.7, 32.0 (2.07). Prototype, **MARS VICTOR** (?) of Tetricus I, M. & S. v, 2, p. 409 (C. 80). The reverse, a common enough one in general, is rare for Tetricus I, but the features of the obverse suggest that Emperor.

The obverse legend seems to strive hard at meaning, without attaining it, whether read forward or retrograde. Found at Alcester. [Pl. XVI. 5.]

7. *Obv.* . . . TODIINVS PP AVG. Bust, radiate, draped r.

Rev. . . . TV VA . V Virtus (?) standing r., holding vertical spear in r. hand and baton (?) in l.

Æ 0.7, 32.8 (2.13). Prototype, VIRTVS AVG of Victorinus, M. & S. v, 2, p. 893, nos. 131 ff. The shield on *rev.* has vanished here into something like a baton. The *obv.* legend and portrait both keep something of the original. [Pl. XVI. 6.]

8. *Obv.* IIICTVI . . . C . . . JACITVS AVG Bust, radiate, draped r.

Rev. PAX A V C Pax running l., holding branch in extended r. hand and transverse sceptre in l.

Æ 0.75, 48.4 (3.14). Prototype perhaps, M. & S. v, 1, p. 341, no. 147 (C. 69). The obverse legend obviously aims at IMP C M CLA TACITVS AVG, but the features are not at all close to his. The standing Pax is one of the commonest types to be imitated: the running figure is rare. [Pl. XVI. 7.]

9. *Obv.* . M DAO . . . OND. Bust, radiate, draped l. Border of crescents ()))

Rev. M A large jug with handle. Border of crescents ())).

Æ 0.95, 45.4 (2.94). Extremely curious and picturesque style. Prototype of *rev.*, PIETAS AVGG or AVGVSTOR of Tetricus II, M. & S. v, 2, p. 423, no. 254 (C. 48 ff.). The obverse has a glory of its own. Found at Richborough Castle. [Pl. XVI. 8.]

10. *Obv.* IC . . . VI Bust, radiate, draped, cuirassed r.

Rev. . . . QVCII . . . Jug with ornate base.

Æ 0.65, 23.7 (1.54). Prototype of *rev.* as on no. 9. A remarkable obverse, with strange pattern treatment of cuirass. Found at Richborough Castle. [Pl. XVI. 9.]

11. *Obv.* CPISV TETRICVS AVG. Young bust, radiate, draped r.

Rev. . . . VIDEVITA AVG. Providentia (?) standing l., holding wand (?) in lowered r. hand and cornucopiae in l.

Æ 0.75, 87.0 (2.40). Prototype, PROVIDENTIA AVGG of Tetricus II, M. & S. v, 2, p. 423, no. 262 (C. 68). A rare type for Tetricus II. The style is curious, but firm. Note the curiosities of lettering and the shape of the cornucopiae. [Pl. XVI. 10.]

12. *Obv.* ΠΙΕΝ ΙΣΑ C Head, radiate, r.

Rev. ΣΟΠΙ CΥΝ . . . V Pegasus running r.

B. 1.0, 54.7 (3.54). Prototype, SOLI CONS AVG of Gallienus, M. & S. v. 1, p. 155, no. 282 (C. 980). Apparently overstruck on an old flan. The obverse legend possibly shows some memory of GALLIENVS, but the features are unlike that Emperor.

13. *Obv.* No legend. Head, radiate, r.

Rev. No legend. Nude figure standing front, both knees bent, holding vertical spear (?) in r. hand and branch, downwards, in l.

Æ 0.55, 21.0 (1.36). No prototype recognizable. The omission of legend and the curious angularity of the reverse are both conscious and deliberate. [Pl. XVI. 11.]

14. *Obv.* Ι Μ C ΤΕΤΡ . . . V Bust, radiate, draped r.

Rev. No legend. Nude figure, with crescent (?) on head, advancing r., holding spear in r. hand and thrusting forward l. hand. ∪ high l., X in field r. Border of large dots.

Æ 0.65, 27.2 (1.76). The obverse legend clearly recalls Tetricus I, but the strange large eye and haggard visage are not his. The reverse is not unlike a Mars advancing r.; the spear is there, but the trophy is missing, and there is apparently no helmet, unless the crescent represents one. [Pl. XVI. 12.]

15. *Obv.* IMP VICT . RINVS AV Bust, radiate, draped r.

- Rev.* C O VN(?) Draped figure standing l., holding out r. hand (?) and holding uncertain object in l.
- Æ 0.6, 12.8 (0.83). No prototype recognizable. The legend of Victorinus is almost complete, but the features are not his. The head of the reverse figure is abnormally large. The whole impression is of something far from Roman. [Pl. XVI. 13.]
16. *Obv.* No legend visible. Bust, radiate, draped r.
Rev. Vague traces of letters. Curious pattern type.
 Æ 0.7, 45.7 (2.96). No prototype recognizable, but the pattern on reverse probably takes its origin from some known type of the third century—possibly the jug of the PIETAS AVGG reverse of Tetricus II.
17. *Obv.* C TET . . . VSC C Young bust, radiate, draped r.
Rev. . . . RTVS AS(?) . . Figure, in military dress, standing l., holding wheel (?) in r. hand and vertical sceptre in l.
 Æ 0.7, 33.1 (2.15). The obverse certainly aims at Tetricus II, the reverse legend suggests "Virtus", but the type is far removed from Tetricus's, soldier standing r. or l., holding spear and leaning on shield, M. & S. v, 2, p. 424, no. 280 (C. 104 ff.).
18. *Obv.* No legend visible. Bust, radiate, draped r.
Rev. Vague traces of letters. Naked figure advancing l., holding vertical sceptre in r. hand and raising l. hand, with fingers spread.
 Æ 0.5, 16.3 (1.06). Quite unclassical, but with an odd form of its own.
19. *Obv.* . . . TIT . . . VOC Bust, radiate, draped r.
Rev. No legend. Figure, in military dress, advancing l., holding bow in extended r. hand and transverse spear in l.
 Æ 0.75, 37.6 (2.44)—with a large hole. Obverse legend seems to show traces of "TETRICUS"; the *rev.* type is beautifully clear and well defined, but has no third century prototype. Found at Richborough Castle. [Pl. XVI. 14.]

20. *Obv.* No legend visible. Head, radiate, r.

Rev. No legend. Large figure standing front, head r., r. arm off flank, extending l. over smaller figure, kneeling l. before him, holding up sword (?) in r. hand.

Æ 0.5, 24.0 (1.56). The reverse is unparalleled in third-century coinage. Our description is probably correct; but the artist was hardly competent to render his meaning with any exactness. [Pl. XVI. 15.]

21. *Obv.* Traces of letters, including TETR. Bust, radiate, draped r.

Rev. Two figures, in military dress, standing l. and r. holding uncertain object between them in clasped r. hands.

Æ 0.65, 29.0 (1.94). The reverse is unparalleled for Tetricus (cp. obverse) but is not unlike various "two-figure" reverses of the last quarter of the third century. Imitations of these are, however, exceptionally rare. Found at Richborough Castle.

22. *Obv.* IMP C TETRICV Bust, radiate, draped r.

Rev. . . . SI TT. Large figure, standing front, head r. (?), hands at side: to l., smaller figure standing, hands extended downward.

Æ 0.7, 27.8 (1.80). The obverse shows a remarkably clear legend, the reverse is quite unparalleled. The two figures, side by side, seem certain: it is impossible to determine exactly their relationship to one another. Found at Richborough Castle. [Pl. XVI. 16.]

23. *Obv.* . . . IIIAPCA2 Bust, radiate, draped r.

Rev. No legend. Stag, with antlers, standing r.: above it, 2♁ (?).

Æ 0.7, 40.1 (2.60). The reverse might possibly be derived, at several removes, from one of the animals in the DIANA CONS AVG series of Gallienus, M. & S. v, 1, p. 146, nos. 176 ff. (C. 153 ff.). [Pl. XVI. 17.]

24. *Obv.* . . . VSAVG. Bust, radiate, draped r.

Rev. IMAICY . . . (r. to l.; outwardly). Clasped hands.

Æ 0-6, 36-4 (2-36). The features of obverse are clearly those of Claudius II; the nearest reverse seems to be **CONCORDIA AVGG** of Gallienus, *M. & S.* v, 1, p. 80, no. 181 (C. 125). Found at Richborough Castle. [Pl. XVI. 18.]

25. *Obv.* Vague traces of letters. Head, radiate, r.

Rev. No legend. Swastika.

Æ 0-5, 11-8 (0-76). A remarkable reverse unparalleled in third century, but not unlike some "cross" reverses, found in the Richborough radiate hoard of 1931. [Pl. XVI. 19.]

26. *Obv.* No legend visible. Bust, radiate, draped r. (overstruck).

Rev. No legend visible. Horseman riding r., raising r. hand (overstruck: traces of letters—**CONSTANTI**).

Æ 0-6, 17-8 (1-15). The under coin was of Constantine I or family, certainly not earlier than c. A.D. 330. The upper coin seems to be certainly unknown: the obverse certainly looks radiate, but there is some deformation produced by the overstriking. Found at Dorchester, Oxford. [Pl. XVI. 20.]

The coins here recorded, as we said at the beginning, will rather raise problems than settle them. For the moment, what is important is that the problems should be recognized and preparations made to deal with them in due course.

HAROLD MATTINGLY.

XIV.

NOTES ON THE OXFORD COLLECTIONS.

(4) CARIA.

[SEE PLATES XVII-XVIII.]

ALABANDA.

1. Head of Apollo r., laur., hair rolled and falling in three formal locks, one end of tie of wreath showing in front of neck.

Pegasus galloping r.: i. f., above, \nearrow AAA BAN, below \rightarrow Δ E Ω N and I: in wreath of laurel with berries.

\mathcal{A} \uparrow , 29 mm., 11.70 g. [Pl. XVII. 1.]
(Servetopoulos, Smyrna, 1922)

This is one of several staters of Alabanda which came into the market about the same time: the serials, so far as I know, ranged from Θ to IE .

2. Chelys, with four strings.

\curvearrowright AAABANA Humped bull standing l.: in ex. \rightarrow APTE

\mathcal{A} \uparrow , 12 mm., 1.35 g.
(Nicolaidēs, Smyrna, 1912)

Probably late second century B.C.

Caracalla.

3. ζ AV KMAVP γ ANT Ω NEINOC Bust r., laur., wearing cuirass and cloak.

ζ AAABA γ N Δ E Ω \leftarrow N Zeus seated l., himation over legs, on throne with high back, resting r. on sceptre, holding thunderbolt in l.

\mathcal{A} \downarrow , 33 mm., 14.97 g.

This may be the type of Mi. iii. 310. 39, but Mionnet's description of Zeus as "foudroyant" does not seem quite to fit: it may also be Inv. Wadd. 2116.

ALINDA.

1. Head of Herakles (?) r., bearded.

Bunch of grapes: i. f., above, ←ΑΛΙΝ, below, l., Δ,
r. club (?) upwards.

Æ ↑, 12 mm., 1.53 g. (Nicolaides, 1918)

Second century B.C.

Septimius Severus.

2. ΩΑΥ ΤΚΑΣΕΠΣΕΟΥΗΡΟΣΣΚΑΙΜΑΥΡΑΝΤΩ ΞΝ
-
- ΕΙΝΟΣ Busts of Severus r., laur., wearing cuirass
-
- and cloak, back view, and of Caracalla l., laur.,
-
- wearing cuirass, facing.

ΣΕΠΙΜΑΥΡΜΕ ΝΙ ΞΠΠ[Ο]ΥΑΛΙΜΔΕΩΙΑΡ[· · ·]
Herakles standing, back view, head r., nude, holding
club and lion-skin on l. arm, with r. hand clasping
r. of emperor standing l., wearing cuirass, resting l.
on sceptre: between them, in six lines, ΔΞ[· · ·]Ο |
ΥΜΕΙ|ΟΧΗΡ|ΑΚΑ|ΙΔΟΣ|Ε l, and, below, altar
with fire.

Æ ↓, 37 mm., 29.15 g. (pierced). [Pl. XVII. 2.]
(Bodleian)

ANTIOCHIA.

1. ΣΙΕΡΑ ΞΒΟΥΑΗ Bust r., draped. [Oblong cmk.,
-
- bowcase.]

ΣΑΝ ΤΙ ΞΟΧ Ε ex. →Ω Ν Tetrastyle temple-
front with arched centre: within, statue of Tyche
standing l., wearing modius, holding in r. rudder,
in l. cornucopiae.

Æ ↓, 24 mm., 7.14 g. (G. J. Chester)

Early third century A.D. This type of counter-
mark is unusual so late.

L. Verus.

2. ΣΑΚΑΟΥ· ΞΑΥ·ΟΥΗΡΟΣ Head r. laur.

ΣΑΝΤΙΟ ΞΧΕΩΝ Athene advancing r., wearing
helmet, long chiton, and aegis, holding spear raised
in r. hand, shield on l. arm.

Æ ↓, 27 mm., 11.04 g. [Pl. XVII. 3.]

Compare Mi. iii. 318. 86.

Gallienus.

3. ΣΑΥΚΠΟ ΣΓΑΛΛΙΗΝΟ Bust r. laur., wearing cuirass and cloak, back view.

ΣΑΝΤΙΟ ΣΧ ΕΩΝ Athene standing to front, head l., wearing helmet, long chiton, and aegis, resting r. hand on spear, shield on l. arm.

Æ ↑, 26 mm., 9.33 g. [Pl. XVII. 4.]
(Nicolaidēs, 1918)

4. Σ----- ΣΓΑΛΛΙΗΝ Bust r. rad., wearing cuirass and cloak, back view.

ΣΑΝΤ ΙΟ ΣΧ ΕΩΝ Tetrastyle temple-front with arched centro, columns with spiral decoration, roof and architrave garlanded: within, statue of Hera (?) standing l., wearing long chiton, r. hand outstretched, l. on sceptre.

Æ ↓, 30 mm., 16.99 g. [Pl. XVII. 5.]
(Athens, 1924)

*APHRODISIAS.**Julia Domna.*

1. ΣΙΟΝΑΙΑ ΣΔΟΜΝΑΣΕΒ Bust r., draped.

ΣΑΦΡΟΔΕ ΣΙΣΙΕΩΝ Cult-statue standing r., veiled and draped, crowned with kalathos, hands outstretched: on l., small figure of woman seated r., on r. round altar: above, on l. star, on r. crescent.

Æ ↓, 30 mm., 9.57 g.

Macrinus.

2. ΣΑΥΚΜΣΕ ΣΜΑΚΡΕΙΝΟC Bust r., laur., wearing cuirass.

ΣΑΦΡΟΔ ΣΙΣΙΕΩΝ Emperor standing r., wearing cuirass and cloak, holding in r. phiale, in l. sceptre, facing city-goddess standing l., wearing turreted crown, long chiton, and peplos, holding on r. cult-statue to front, in l. sceptre: between them, altar with fire.

Æ ↓, 35.5 mm., 21.86 g. [Pl. XVII. 6.]
(Bodleian)

Gallienus.

8. $\Sigma\text{ΑΥΚΑΙΠΟΛΓΑΛ}\ \Sigma\text{ΛΙΗΝΟC}$ Bust l., wearing crested helmet with radiate crown round and cuirass, spear by r. shoulder, shield by l.

$\Sigma\text{ΑΦΡΟ}\ \Sigma\Delta\text{Ε}\ \text{I}\Sigma\text{I}$ ex. $\rightarrow \text{ΕΩΝ}$ Emperor standing l., wearing radiate crown, cuirass, and cloak, r. hand raised, sceptre in l., in chariot drawn by four horses walking l.

Æ \uparrow , 28 mm., 9.57 g. [Pl. XVIII. 1.]

Compare B.M.C. Caria, 48. 135.

Valerianus jr.

4. $\Sigma\text{ΕΠΙΦΚΑΙΠΟΚΟΡΟΝΑΛΕΡΙΑΝΟC}$ Bust r., laur., wearing cuirass and cloak.

$\Sigma\text{ΑΦΡΟ}\ \text{ΛΔΕΙ}\ \Sigma\text{CΙΕΩΝ}$ Three leafless tree-trunks springing from latticed enclosure.

Æ \downarrow , 22.5 mm., 4.11 g. (New College)

The obverse seems to be from the same die as Imhoof, Gr. M. 422: the reverse type is that of B.M.C. Caria, 35. 56.

APOLLONIA.

1. $\Sigma\text{ΙΕΡΑCΥΝ}\ \Sigma\text{ΚΛΗ}$ Bust r., draped.

$\Sigma\text{ΑΠΟΛΩΝ}\ \Sigma\text{ΙΑΤΩΝ}$ Bust of Apollo r., laur., wearing chlamys.

Æ \downarrow , 16 mm., 3.52 g. (Nicolaidēs, 1912)

Early second century A.D.

ATTUDA.

1. $\Sigma\text{ΘΕΟΝCΥΝ}\ \Sigma\text{ΚΛΗΤΟΝ}$ Bust r., draped.

$\Sigma\text{ΕΠ. CΤΕΦΤΡΥΦ}\ \Sigma\text{[-----]ΑΤ}$ (ins.) $\Sigma\text{ΤΟΥ}\ \Sigma\text{ΔΕΩΝ}$ Apollo standing to front, nude, holding in r. arrow, in l. bow.

Æ \uparrow , 25 mm., 7.65 g. [Pl. XVIII. 2.]
(Nicolaidēs, 1910)

The name of the magistrate should probably be restored Τρυφωνίου rather than Τρυφῶνος : there are traces of what might be the base of a V on the edge of the coin before AT. In either case the name is a new one for Attuda.

2. ΔΗΜΟC Youthful bust r., draped. [Round cmk., Γ: a second, (?) head.]

ΑΤΤΟ ΝΥΔΕΩΝ Apollo standing to front, head l., nude, holding in r. laurel-branch over altar and resting l. elbow on short column.

Æ ↓, 22 mm., 5.42 g. (Nicolaides, 1913)

Third century A.D.

BARGASA.

Salonina.

1. ΚΠΟΛΙ ΝΑΛΩΝΙΝΑ Bust r., draped, crescent behind shoulders.

ΒΑΡΓΑ ΝΗΝΩΝ Hygieia standing to front, head r., wearing long chiton and peplos, holding in r. hand snake which feeds from patera in her l.

Æ ↓, 22 mm., 6.27 g. (H. Weber, 6443)

In the Weber catalogue the reverse type is incorrectly described as Aphrodite. It may be noted that the obverse legend of H. Weber, 6442, stated in the catalogue to be "almost illegible", is ΚΑΥΚΠΟ ΝΑΙΓΑΛΛΗ: this coin is also now in the Oxford collection.

CNIDUS.

1. Head of Aphrodite r., with ear-ring and necklace, hair in sphendone: to l., prow r.

ΝΓΑΡΑ[Σ]ΤΑΣ Forepart of lion r.: to r., vase: square incuse.

Α↑, 20 mm., 6.98 g. (Osman Noury Bey, 1925)

From the same dies as Pozzi cat. 2590.

2. Head of Artemis r., wearing stephane.

r. ↓ΑΣΚΛΗΠ[ΙΟ]ΔΩΡΟΣ. l. ↓ΚΝΙΔΙΩ[N] Tripod, with curved bar above between handles.

Α↑, 15 mm., 2.05 g. [Pl. XVIII. 3.]

(Godwyn bequest)

This coin differs considerably in style from all of the same types with other magistrates' names which I have seen: the treatment of the head on the obverse is freer, and the hair waved from front to

back, instead of drawn down from the crown: on the reverse the magistrate's name and ethnic are on r. and l., instead of l. and r., and the bar over the tripod is curved instead of straight. It looks distinctly earlier than any of the others.

3. Head of Aphrodite (?) r., wearing stephane.

Prow of galley r. : i. f., above, →ΚΝΙ, below, club ← and →ΔΑΜΟΚΡΑ

Æ ↑, 12 mm., 1.20 g.

Mi. S. vi. 482. 300 and Hunter cat. ii. 423. 7 have the same types and name, but differ in the arrangement of the reverse.

4. Similar to 3, but magistrate's name ΙΕΡΟΚΛΗ[Σ].

Æ ↑, 12 mm., 2.55 g. (G. J. Chester)

Caracalla.

5. ἈΥΜ ΑΝΤΩΝΙΝΟC ∪ΦΟΥΡΒΙΑΠΛΑΥΤΙΑΛΑ
Busts of Caracalla r., laur., wearing cuirass and cloak, back view, and Plautilla, l., draped, facing.

ΚΝΙ ∆ΙΩΝ Tyche standing l., wearing turreted crown, long chiton, and peplos, holding in r. rudder, in l. cornucopiae.

Æ ↓, 34 mm., 20.28 g.

From the same obverse die as B.M.C. Caria, 97. 100.

HALICARNASSUS.

1. Head of Poseidon r.

l. ↑ΑΛΙΚΑ, r. ↑ΔΙΟΚΑ[] Trident upright, with dolphins between prongs: on r. of handle, volute, on l., owl l.

Æ ↑, 18 mm., 5.64 g.

2. Similar to 1, but on rev. magistrate's name ΔΙΟΝΥ: by handle of trident, on r. two piloi with stars above, on l. one.

Æ ↑, 16.5 mm., 6.13 g. (Nicolaides, 1912)

3. Similar to 1, but on rev. magistrate's name ΔΙΟΚΚΟ: by handle, volutes on both sides.

Æ ↑, 19 mm., 4.41 g. (G. J. Chester)

HERACLEA.

Trajan.

1. ΟΤΡΑΙΑΝΟC ΚΑΙCΑΡ Head r. laur.

ΣΗΡΑΚΛΕΩ ΣΤΩΝ Herakles standing l., nude, r. hand outstretched, club and lion's skin on l. arm.

Æ ↓, 20 mm., 2.73 g. (New College)

2. Similar to 1, but legend ΟΤΡΑΙΑΝΟ CΚΑΙCΑΡ and ΣΗΡΑ Κ ΣΑΕΩ ΤΩΝ

Æ ↓, 21 mm., 4.29 g.

In neither of these two coins is there any trace that Herakles holds anything in his r. hand, as seems to be the case in Imhoof, Kl. M. i. 134. 8.

IASUS.

1. Head of Apollo r., laur., hair long.

Boy and dolphin swimming r., boy's l. arm over dolphin's back: i. f., above, →ΙΑ, below, →ΜΕΝΟΙΤΙΟΣ

AR ↑, 19 mm., 5.02 g. [Pl. XVIII. 4.]
(Stylianopoulos, Athens, 1924)

2. Types as 1: magistrate's name ΑΝΘΕΥΣ

Æ ↑, 17 mm., 3.98 g. (H. Weber, 6523)

In the Weber catalogue the magistrate's name is given as ... ΝΟΣ

3. Types as 1: magistrate's name [Ε]ΥΚΡΑΤΗΣ

Æ ↑, 16 mm., 4.00 g.

4. Types as 1: magistrate's name ΚΛΕΙΤΟΣ

Æ ↑, 16 mm., 3.35 g. (Nicolaidēs, 1912)

5. Head of Apollo r., laur., hair in formal curls: b. d.

Boy and dolphin swimming r., boy's l. arm over dolphin's back: above, →ΙΑ, below, →ΑΝΑ - | ΙΠΠ --: in wreath of reeds.

Æ ↑, 17 mm., 2.36 g. [Pl. XVIII. 5.]

MYLASA.

Sept. Severus.

1. $\Sigma\text{AVKACC } \Sigma\text{EVHPOCNE}$ Bust r., laur., wearing cuirass and cloak, back view.

$\Sigma\text{MVAA } \Sigma\text{CEON}$ Cult-statue of Zeus to front, crowned with polos, crossed draping on body, holding in r. bipennis, in l. spear.

$\text{Æ } \downarrow$, 28 mm., 9.47 g. [Pl. XVIII. 6.] (Raye)

The description of the reverse-type in Mi. S. iii. 357. 314 may be meant for this, but does not agree. This coin is figured in Wise, Pl. XIII. 10.

Severus Alexander.

2. $\Sigma\text{MAVPCEV } \Sigma\text{AAE}\Xi\text{ANAP}$ Bust r., laur., wearing cuirass and cloak, back view.

$\text{MV}|\text{AAC}| \text{EON}$ in laurel-wreath.

$\text{Æ } \uparrow$, 19 mm., 5.16 g. (New College)

Gordianus III.

3. $\Sigma\text{AVTKM } \Sigma\text{ANTFOPIANOC}$ Bust r., laur., wearing cuirass and cloak, back view.

$\Sigma\text{MYAA } \Sigma\text{CEON}$ Asklepios standing l., himation over l. shoulder and round legs, resting r. on serpent-staff.

$\text{Æ } \downarrow$, 23.5 mm., 7.80 g.

MYNDUS.

1. Head of Zeus r., laur.

$\Sigma\text{AAE}\Xi\text{AN} \dots$ Eagle standing r. on thunderbolt, wings open: in ex. $\rightarrow\text{MVN}\Delta[\text{ION}]$: b. d.

$\text{Æ } \uparrow$, 26.5 mm., 8.94 g. (H. Weber, 6539)

In the Weber catalogue the magistrate's name is said to be illegible.

2. Head of Zeus r., laur.

Winged thunderbolt upwards: on l. $\uparrow\text{MVN}\Delta[\text{ION}]$, on r. $\uparrow\Delta\text{IO}\Gamma\Xi[\text{NH}\Sigma]$: b. d.

$\text{Æ } \uparrow$, 17 mm., 2.84 g.

3. Head of Apollo r., laur., hair in long locks.

Owl perched r., head to front, on branch of olive :

i. f., above, \sim [M]VNΔI, below $\overset{\chi}{\text{A}}\text{E}$, [C]ΩCT, to r.
[Two oblong countermarks, each of three dots.]

Æ ↑, 19 mm., 5.15 g. (H. Weber, 6540)

The monogram on the reverse, and the countermarks, which are unusual, are not noted in the Weber catalogue.

ORTHOSIA.

1. Head of Zeus r., laur., hair in stiff curls : b. d.

ΩΟΡΘΩΣΙΕΩΝ Bipennis upwards: i. f. r. X

Æ ↓, 14 mm., 2.25 g. (New College)

SEBASTOPOLIS.

1. Bust of Sarapis r., crowned with modius and draped : b. d.

ΣΕΒΑΚΤΟ ΠΙΟΛΕΙ ←ΤΩΝ Cista with lid half open and serpent issuing r.: b. d.

Æ ↓, 19 mm., 4.50 g.

Early second century A.D.

2. Bust of Athene r., wearing crested helmet and aegis : b. d.

ΣΕΒΑΚΤΟΠ ΠΟΛΕΙΤΩΝ Warrior standing l., wearing cuirass, resting r. on shield, spear in l.: b. d.

Æ ↓, 20 mm., 4.20 g.

Late second century A.D.

STRATONICEA.

1. Head of Hekate r., crowned with crescent.

Nike advancing r., wearing long chiton, holding in r. wreath, in l. palm: in f., above, \rightarrow ΔΩΡΙΦΩ
N, below, C T: square incuse.

Æ ↑, 15 mm., 1.64 g.

2. ΟΥΤΡ ΑΤΟΝΙΚΕΩ Ν Bellerophon standing to front, nude, holding bridle of Pegasus galloping l.: b. d.

ΟΕΠΙΧ...|ΤΟΥ ΑΡΧΟ... Altar, with fire on it, between two torches upright: b. d.

Æ ↑, 20 mm., 4.41 g. (H. Weber, 6566)

The reading of the reverse inscription in the Weber catalogue is certainly wrong. The name of the magistrate may be that read doubtfully as Καλντος on the silver coin E. F. Weber, 8170: it does not seem to be the ΑΕΟΝΤΟC of Waddington, 2569, of the same type.

Antoninus Pius.

3. Ο[]ΝΟC CΕΒΕΥC-ΜΑΥΡΗ[] Busts of Antoninus l., laur., wearing cuirass and cloak, back view, and Marcus Aurelius r., bareheaded, wearing cloak, facing. [Round cmk., laureate bust r.]

CΕΠΙΡΟΥΦ ΟΥ CΤΡΑΤΟΝΕΙΚ ΕΩ Ν Horseman riding r., wearing chiton and chlamys, sceptre over l. shoulder.

Æ ↑, 38 mm., 24.67 g. (G. J. Chester)

Commodus (Caesar).

4. CΛΑΥΡΚΟ ΔΜ-[-] Bust r., bareheaded, wearing cuirass and cloak, back view.

Ζ[-]·Ο Ν ΔΕ ΙΚΕΩΝ Hekate standing to front, head l., wearing long chiton, holding up torch in each hand: at her feet, r., three stalks of corn, l., two serpents.

Α↑, 28 mm., 11.02 g. (Keble College)

Julia Domna.

5. CΙΟΥΛΙΑΔΟ ΔΜΝΑCΕΒΑC Bust r., draped.

CΕΠΛΕΟΝΤΟCΑ ΔΑΚΑΙCΤΡΑΤΟΝΙΚΕ i. f. →Ω Ν Asklepios standing to front, head l. himation over l. shoulder and round legs, resting r. on serpent-staff.

Æ ↓, 30 mm., 8.19 g. [Pl. XVIII. 7.]

TABAE.

1. ὙΤΑΒΗ ΚΝΩΝ Bust of city-goddess r., crowned with turret and draped: b. d.

ὙΛΥΔΟ ΚΡΙΚ Half-skin of animal(?): b. d.

Æ ↑, 15.5 mm., 2.94 g. [Pl. XVIII. 8.]
(Nicolaides, 1912)

The reverse-type of this coin is a puzzle.

2. ΚΑΗΜΟ[Κ] ὙΤΑΒΗΝΩΝ Youthful head r.: b. d.

Trident upwards, with dolphin twined round handle downwards, head l.: i. f. l. ↑ΚΑΛΛΙ|ΚΡΑΤΗ, r. ↑ΒΡΑΧΥΑ|ΛΙΔΟΥ: b. d.

Æ ↓, 24 mm., 8.70 g.

The head on the obverse appears to be derived from a portrait of Nero, to whose reign the coin belongs.

Domitian.

3. [erased] ΚΑΙΣΑΡΕΒΑΚΤΟΚ Head r., laur.

Emperor seated l. on low throne, wearing toga(?), holding on r. Nike r. with wreath, resting l. on sceptre: i. f. l., ΝΚ

Æ ↑, 22 mm., 7.62 g.

The monogram ΝΚ may be connected with the obscure name ΝΕΜΕΚΟ on Imhoof, Kl. M. 160. 14, which seems to be of about the same period.

Cos.

1. Head of Herakles r., bearded, in lion's skin headdress.

Crab upwards: i. f., above, →ΚΩΙΟΝ, below, →ΜΕΝΩΝ and club ←: square b. d.

Α ↓, 15 mm., 3.22 g. [Pl. XVIII. 9.]
(Keble College)

2. Head of Herakles r., bearded, in lion's skin headdress.

Crab upwards: i. f., above, →ΚΩΙΟΝ, below, →ΑΣΤΥΝΟΜΟΣ and club ←.

Α ↑, 16 mm., 2.89 g.

3. Head of Herakles to front, bearded, in lion's skin headdress.

Crab upwards: below, $\rightarrow K \Omega I \Omega N$

Æ \uparrow , 12.5 mm., 2.81 g.

4. Head of Herakles l., beardless, in lion's skin headdress. [Incuse countermark Λ]

Crab upwards: above, $\rightarrow K \Omega I \Omega N$, below, $\rightarrow XAPMI \Pi \dots$ and club \rightarrow

Æ \uparrow , 14 mm., 1.96 g.

5. Head of Herakles r., beardless, in lion's skin headdress.

Crab upwards: above, $\rightarrow K \Omega I$, below, club \rightarrow and $\leftarrow EYKP$

Æ \downarrow , 11 mm., 1.20 g.

6. Head of Herakles three-quarters r., beardless, in lion's skin headdress.

Bow in case \leftarrow and club \leftarrow below: i. f., above, $\rightarrow K \Omega I \Omega N$, below, $\rightarrow [\Delta I] \Omega NY \Sigma I [\Omega \Sigma]$

Æ \uparrow , 15 mm., 2.80 g. (G. J. Chester)

Crude work, much inferior in art to other issues of this type: probably a copy from the Carian mainland.

Domitian.

7. $\Omega K A I C A P \Delta O M I T I A [\quad]$ Head r., laur.

Staff entwined by serpent \leftarrow : below, $\rightarrow K \Omega I \Omega N$

Æ \uparrow , 14 mm., 2.27 g. (Nicolaidēs, 1913)

Antoninus Pius.

8. $\Sigma A Y T K A I C A \Delta P I \Sigma A N T \Omega N E I N O C$ Head r., laur.

$\Sigma K \omega I \omega N$ Hygieia standing l., wearing long chiton, holding in r. patera and from it feeding snake erect r. on altar, in l. bunch of leaves.

Æ \downarrow , 19 mm., 3.26 g. [Pl. XVIII. 10.]

The description of Mi. iii. 410. 96 does not fit this coin.

RHODES.

1. Head of Helios to front, with eagle standing r. partly covering cheek.

Rose upright, with huds on r. and l. : in field Ξ A
 Δ Δ

AR \uparrow , 16 mm., 2.35 g. [Pl. XVIII. 11.]
 (Bodleian)

Published by Wise, p. 6: one of the copies of Rhodian types struck probably in Caria and Lycia.

J. G. MILNE.

XV.

TALISMANS.

THIS paper takes the reader from the broad highway of Numismatics proper into a side lane, in which we shall find some strange flowers, and in which we shall meet with some strange persons. It is not proposed to give a history of talismans; this (although of interest) would be commonplace, as it can be easily read in the numerous text-books and in works of reference, such as the *Encyclopaedia Britannica*. Neither is it proposed to give a lecture on the philosophy of talismans, this (although also of interest) would be quite impossible in the space available, especially to readers, some of whom might be unaccustomed to the general lines of thought involved, and to the astrological, occult, kabbalistic, and other basic arguments. I propose, instead, after a brief foreword, to describe five talismans, and then to offer my personal opinions as to their power and validity. The word *talisman* is derived through the Arabic from a Greek word which signifies a symbol, image, or figure. It is a sign which stands as the nominal equivalent of a force or influence. Talismans can be of any size, shape, or material. I have two engraved on gems and one on a piece of slate. They need not be material at all, but can be a sign, a word, or even a thought. At our last meeting our President reminded us of the cross and legend which appeared in the heavens to the Emperor Constantine. This was a talisman. So also was the magic word *Macabi* revealed to Judas whereby he slew 46,000 of his

enemies; this also was a talisman. The breastplate of the High Priest was a talisman, the precious stones therein being assigned to the twelve months of the year, and it was believed that the divine revelations obtained by the shining or dullness of the gems were indicative as to whether the atonement had been accepted or not. The twelve stones engraved with the twelve anagrams of the Name of God had a mystic power over the zodiac harmonizing the twelve angels who had affinity with the twelve tribes of Israel. Too frequently one hears a religion condemned as idolatrous because its gods were typified in human or animal form. That it was the virtue the figure represented, and not the figure itself, that was venerated, was ignored; but Christians would be indignant if the use of the Lamb as a symbol in their services caused them to be accused of idolatrous worship of that emblem.

Talismans are found among all peoples in all periods of history; no occult formula is more universal. They have survived all forms of incredulity, and in doing so have revealed their own eternal vitality. So does the talisman show its strength, and its occult power is manifested in the fact that men have not been able to get free of it.

The talismans described below are silver ones of an astrological character, but before describing them it is, I think, necessary to make a few general remarks in order that my descriptions be intelligible.

Few of us who have studied the ascent of man on this earth from the geological and anthropological records, and note the slow, gradual uplift from the mineral to the vegetable, from the vegetable to the animal, and from the animal to man, few of us, I say,

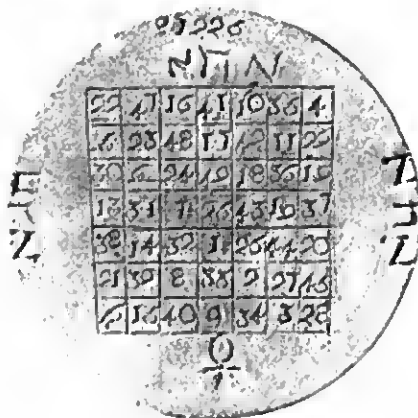
are purely materialistic; the evidence of purpose, arrangement, and design is tremendously strong; but still more powerful, in my own opinion, is the care taken that the race shall, in spite of nearly overwhelming difficulties and dangers, survive and progress. It is, to me, unthinkable that such care can come about by mere chance or by purely materialistic causes. It indicates, to me at any rate, a spiritual guardianship at once active, intelligent, careful, and loving. So much for the ascent of man, but those of us who have also studied the descent of man from the spiritual world, through the intuitional world, through the mental world, through the emotional world down to this material world, the lowest of them all, from which man begins the upward climb to reach the God again from whom he sprang, have no room whatever for pure materialism; the evidence is far too strong. So when I am asked, Has man descended from a higher estate, or ascended from a lower one? I answer "both". The descent was to a certain point, the ascent was to that point, and the breath of life made him at that juncture a living soul having the god-like gift of free-will. Thus religion, philosophy, and science are not antagonistic, but harmonize in setting forth the various aspects of one great divine truth, and the statements in Holy Writ that man was made of the dust of the earth, and also that he was made only a little lower than the angels, are seen both to be true.

In that magical book, the Apocalypse, St. John the Divine (or the early Christian gnostic who assumed his mantle) informs us of Seven Spirits before the throne of God. They are mentioned in several places in the book, and it was from them the writer of the

book received the messages for the churches of Asia. Who then were these Seven Spirits who had such an interest in the affairs of men? They were the seven planetary Spirits having the care of this world. He further informs us he saw One like unto the Son of Man having in His right hand Seven Stars, and the Holder explicitly told the scribe "the seven stars are the angels of the seven churches". So now we have seven stars, seven spirits, seven angels, and seven churches.

When this world we call our earth was put into its present position (whether by direct creation or by transference is immaterial to the present discourse) the Almighty Power placed it under the care, or stewardship, of seven major planetary influences, the Sun, Moon, Mars, Mercury, Jupiter, Venus, and Saturn, to name them in the order of the days of the week allocated to each of them. Each one of these planets has its material influence on this earth (that of the sun and moon is obvious to every one). Each one, through its spiritual rulers, has spiritual influence on this earth. The spiritual rulers of each of the planets are their Angels, Spirits, Intelligences, and Demons, as well as many lesser powers. Their names are known and are familiar to occultists. Several of the names appearing in Holy Writ, and other ancient writings, are also familiar to the ordinarily intelligent person. Each of these powers has its special activities, special work to do, particular affairs to influence or govern. These are the names of the Angels of the planets: of the Sun, the Archangel Michael; of the Moon, Gabriel; of Mars, Samael; of Mercury, Raphael; of Jupiter, Zachariel (called Uriel by the Christian Gnostics); of

Venus, Anael; and of Saturn, Oriphiel. Considerations of space forbid my giving the names of the Spirits, Intelligences, and Demons, but they are all known. I will confine myself to the two planetary influences Venus and Jupiter of whom I am about to describe



No. 1.

five talismans. The Spirit of Venus is Hagith, the Intelligence Hagiel, and the Demon Kedemel. Of Jupiter, the Spirit is Bethor, the Intelligence Jophiel, and the Demon Hismael.

No. 1. A talisman of Venus.

A circular silver uniface talisman pierced with two holes close to the edge, possibly for attachment to a garment—the plain reverse inclines one to this view.

Obv. Within an inner circle the magic square of Venus, a square containing 49 compartments (7×7) with numbers so arranged that they cast up to 175 in each direction, horizontally, vertically, and diagonally, the total of the numbers being 1,225, which number is punched at the top of the talisman between the edge and the inner circle.

The workmanship is crude, the lines being scratched on and the numbers punched in. An error occurs in the 21st compartment where the number 19 should be 12.

Below the square is the symbol of Venus, the cross and circle, a sign representing life from earliest times. It represents the male and female and is the sign of fertility over which Venus specially presides. Hebrew characters representing $\aleph \eta \aleph$, the name answering to number 7, are above and at each side of the square.

The reverse is quite blank.

Referring to the magic square, astrological talismans generally have magic squares upon them. A problem familiar to us in our youthful days was how to dispose the figures 1 to 9 in nine squares to cast to 15 every way, which was successfully accomplished by placing 5 in the centre. This 3×3 square is the square of Saturn, 4×4 square (which we shall presently see) is the square of Jupiter, 5×5 of Mars, 6×6 of the Sun, 7×7 (as above) Venus, 8×8 Mercury, and 9×9 the Moon.

No. 2. A talisman of Venus and Jupiter.

A circular talisman of two thin plates of silver with design stamped on them and then fastened together. A well-executed, careful piece of work.

Obv. On the right a crowned figure of Jupiter seated looking to the left, grasping in his left hand a rod; his right hand grasps the left hand of the standing figure of Venus. Behind his head his astrological symbol and the name of his angel SATQVIEL. At his feet a bird, probably an eagle. The name of the angel, SATQVIEL, is another way of writing Zachariel, the angel of Jupiter, one of the seven archangels, whose name signifies Justice.

On the left a standing figure of Venus. She has long hair and holds in her right hand a dart, her left hand grasping Jupiter's right hand as previously mentioned. On her right is her astrological symbol, the cross surmounted by a circle as described on the first talisman. Against her

head the crescent moon and on her left side the name of her angel, ANAEL. Between the heads of Venus and Jupiter appears the zodiacal sign of Taurus, which is the night house of Venus, and the forepart of a bull with a star before his face. This is the bright morning star always associated with this planet.



No. 2.

The obverse of this talisman is very similar to that which belonged to Catherine de Medici except that, in her specimen, Venus is holding a mirror.

Rev. A square containing 49 compartments, the numbers in which are apparently a composition of the magic squares of Venus and Jupiter. Above are the astrological symbols of Venus and Jupiter, below the zodiacal sign of Taurus. At the left the name of the angel, ANAEL, and at the right SATQVIEL.

No. 3. *A talisman of Jupiter.*

A circular engraved talisman of silver, pierced at the top for suspension.

Obv. In the square a centre of 16 compartments (4×4), the magic square of Jupiter, the numbers being in Hebrew. Below the square is the symbol of Jupiter and the number 136, which is the sum total of the numerals in the square. The name of JOPHIEL, the Intelligence of Jupiter, appears in Hebrew on the left side of the square. אנן לן appears above and אנן on the right, Hebrew words answering to the numbers of Jupiter.

Rev. In the centre of the upper part of the field the kabalistic seal of Jupiter, below it on the right, the kabalistic signature of the Intelligence of Jupiter. These are not fanciful scrawls, but are produced by kabalism from the name of Jupiter and from the name of his Intelligence,



No. 3.

Jophiel. On the left the astrological symbol of Jupiter. Between the inner circle and the edge is the Latin inscription, CONFIRMO O DEVS POTENTISSIMVS.

No. 4. A circular talisman of silver of Venus and Jupiter, covered each side with symbols.

Obv. In the centre the magic square of Venus as previously described. Above the square on the left HANAEL (a variety of Anael), the Angel of Venus. In the centre the name ANAEL. On the right SAGVIN. This Sagun is the name of the Third Heaven which is associated with Friday, the day of Venus. Above the words is the sign of Life which, as before stated, is the symbol of Venus, and also the zodiacal signs of Taurus and Libra, the night and day houses of Venus. Other signs familiar to occultists and kabalists appear, and are recognized as the mysterious characters of Venus. On the left of the square appears the name SAYMEL. This is interesting, as if it refers to Samael, the Angel of Mars, his name on this talisman

indicates that the operation was performed (or commenced) in the sixth hour of Friday, that hour being under the dominion of Mars. At the right of the square the kabalistic words **CEIGN BVN TAALIE ASTIES**. Various magical signs are spaced about the field. Between the inner circle and



No. 4.

the edge is inscribed : **7. 49. HAGIEL INTELLIGENTIA VENERIS 157 KEDEMEL DEMONY VENERIS 1252 BENE SERAPHIM INTELLIGENTII**. The number 157 should be 175 and the number 1252 should be 1225. It is very unusual to find the names of Demons on these talismans, and this, with the two numbers incorrectly put on such a carefully engraved piece, inclines me to think it was prepared for black as well as white magic. I have previously referred to Hagiel and Kedemel being the names of the Intelligence and Demon of Venus, the Bene Seraphim is the name answering to the number 1225.

Rev. In the centre the magic square of Jupiter. The square contains sixteen compartments (4×4), the numbers in them being so arranged that they cast to 34 in each direction, the total being 136. The first compartment of the second row is engraved 5 in error for 9. Above the square are five geomantic characters, being in fact the five signs of Laetitia, one of the geomantic houses presided over by Jupiter; his other house being Acquisitio. Laetitia in geomancy signifies Joy, Health, and Laughing. Its nature

corresponds to Jupiter, its element is airy, and its zodiacal sign is Taurus, the night house of Venus, thus emphasizing the harmony between Venus and Jupiter.

Beneath these five geomantic characters is the symbol of Jupiter twice shown, also the sign of Sagittarius and the sign of Pisces, two signs of the zodiac ruled by Jupiter, being respectively his day and night houses.

At the sides of the square is the kabalistic seal of Jupiter, the signature of the Intelligence of Jupiter and the signature of the Spirit of Jupiter. Occult signs representing the mysterious character of Jupiter appear below the square. The name ZEDKIEL (otherwise Zachariel), the Angel of Jupiter, also appears. Between the inner circle and the edge is inscribed: 4. ABBA 16 16 34 ELAB 136 JOPHIEL 136 HISMAEL ALPHA ET O JEHOVAH JESUS PARRACLETUS EMANUELL AGLA ON. Regarding the numbers 4, 16, 34, and 136, these refer to the magic square; Jophiel is the name of the Intelligence of Jupiter; Hismael is the name of the Demon of Jupiter. Elab, Agla, and On are mystical names of God extracted by kabalism from the Sacred Writings. For instance, Agla (always considered a word of great power and frequently used in necromancy) is extracted from the text "Thou art the mighty Lord for ever". The remaining words Ahba, Jehovah, Jesus, Parracletus, Emauell, and Alpha et O. require no explanation.

No. 5. A talisman of Jupiter.

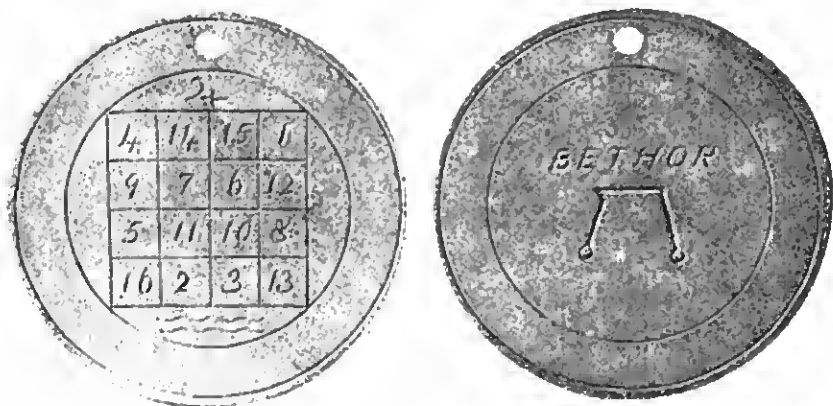
A modern machine-made engraved silver talisman pierced at top for suspension.

Obv. Within an inner circle the magic square of Jupiter correctly arranged. Above it the symbol of Jupiter, below it the zodiacal sign of Aquarius, signifying the talisman was prepared while the planet Jupiter was passing through the eleventh sign of the zodiac, Aquarius being (with Capricorn) under the dominion of Saturn.

Rev. Within an inner circle the kabalistic seal of the Spirit of Jupiter surmounted by BETHOR, the name of that Spirit.

We have now seen some talismans, and the question naturally arises, Are these "fond things vainly invented" or have they any occult or supernatural power?

I hold the opinion *they have a power*. What then is the nature or scope of such power? I have no doubt the power is very largely in the spiritual, intellectual, and emotional domains, and that material prosperity



No. 5.

is little influenced by them. The Higher Powers seem to me (and very reasonably I think) to be little interested in the goods and material possessions of this world, so when I see an effigy of a black cat advertised for sixpence, with a statement it will bring untold wealth to its purchaser, I am not impressed. Furthermore, I do not believe any one could make a talisman to bring him a large and valuable collection of coins from an anonymous source. If so, coin collecting (or any other collecting for that matter) would be considerably easier and much less expensive. Where then is the seat of that power? I do not believe the shape, size, or material of the talisman has any influence. I do believe the sigus, words, and numbers engraved

upon it are helpful in attracting a spiritual force, but the real power is in the Will of the operator. Man is endowed with a magical power capable of being stirred up and brought into activity, and this power consists in the Imagination and the Will. The talisman derives its true power only by the signification it has in the mind of the one who employs it, sustained by a constant faith and directed by the power of the will. The symbol of the cross availed nothing to Constantine, nor the Legend he beheld written above it, but the virtue of both was in the Faith of Constantine, that by this sigil victory should be his. The virtue of the magic word Macabi, previously referred to, was in that which it signified to him, the recipient. The Macabi of Jndas (whence he was called Jndas Maccabaens) was extracted by kabalism from the sentence on his banner, "Who among the powers is as strong as Jehovah?"

Unintelligence and superstition have debased this in the past and at the present many times, the virtue was divorced from its connexion with the operating mind and was referred to the substance of the talisman, or to the blind observance of times and seasons. The preparation for and procedure in making the talisman was laborious and meticulous, the life of the belief departed, and the vivid realization of the absolute power of man over things, animate and inanimate, was replaced by a slavish veneration of occult forces which exercised a fatal and undiscerning tyranny over men and over the magus himself.

I think there can be little doubt an operator having a clean body, clean raiment, and a calm tranquil mind, will produce better results, especially if he prepares his talisman at a peaceful time, when he, himself, is not

tired and his will not enfeebled by bodily fatigue; this is why the first hour of sunrise is always a favourite time for the operation.

Natural man is not, as many imagine, a self-existent being creating his own thoughts, ideas, and feelings; but as his physical body is the product of the confluence and assimilation of physical atoms, likewise the constitution of his mind is the product of the action of the intellectual and emotional elements entering his psychio-organism. We do not create our own thoughts, but the ideas which in pure permanent incorporeal forms exist in the astral light reflect their images in the individual minds of men and women in the same way as a landscape may be reflected in a looking-glass, or the whole of the starry sky be mirrored in a drop of pure water. These images enter the consciousness of man without voluntary effort on his part in the same sense as air enters his lungs without his conscious effort to breathe. Sometimes they enter against his will and desire, for there are thoughts that are not welcome, and again there are welcome ones difficult to retain.

The ideas which enter the field of consciousness act on the man's Imagination and his imagination re-acts upon his Will, thereby producing certain states of feelings or emotions according to the nature of the idea, from the most gross and vulgar passion to the highest state of exalted thought. As the food he eats determines the state of purity, or impurity, of his physical organism, so likewise the thoughts he harbours, and the feelings in which he indulges, determine the purity or impurity of his soul.

Man does not create his thoughts but elaborates them from the ideas which he absorbs, in the same

sense as his physical body elaborates the food which he eats and transforms meat and vegetables into flesh and bones. Likewise the mind of man mixes and combines ideas, and infuses them with life by the power of his Will; and as an impure body may poison the surrounding atmosphere, so also the emanations of an impure mind will poison the mental atmosphere with the products of an impure Imagination rendered alive by an evil Will; for the products of thought *are real and substantial things* even if they are invisible to gross material eyes, and the Will is a real power which may act as far as thoughts may travel.

As the Will of a strong man can influence a weaker mind, as it can bid the magnetic patient sleep, and the clairvoyant, see; *so it can endue an inert substance with an occult force* transferred from the inmost individuality of the operator by a grand mental projection, this is Talismanic Magic.

One more question arises, Is the talisman of virtue to one person only? It is held by many students, by the great majority in fact, that if the talisman passes from the possession of the one who made it, or for whom it was made, it becomes a dead talisman, its power having left it. With this view I am not in agreement. I agree there can be no doubt a talisman is the most effective to the person who actually prepares it for himself, next it is effective to a person who has had it specially made for himself, but I think it will have *some* power for any one who becomes possessed of it provided (and this is of the first importance) he exercises his Will upon it. The occasion or accident of being in the presence of a number of talismans will confer no advantage, if it were otherwise we should

expect to find our friends in the British Museum, where there are hundreds if not thousands, of talismans of all kinds, the most fortunate beings on earth. They may be so. Our friends can tell us. But I expect we shall find them on the average neither more nor less fortunate than the majority of their fellow beings. No—the Will Power is the key that must be used to unlock the door.

In effect the seat of the power of the soul is in the Will of the Man, which is the great magical agent, the instrument in the development of all interior faculties, the life of conscious act, and the sole informing principle of mystic rites and ceremonies.

WILLIAM GILBERT.

XVI.

TWO NOTES ON ENGLISH COINS.

[SEE PLATE XIX.]

1. THE SUPPOSED HALFPENCE OF KING JOHN.

THE "Short Cross Problem" is now happily settled and both Richard I and John are provided securely with coins. The solution of this problem has, however, raised another which has not yet received all the attention it deserves.

In the days when collectors were still searching assiduously for coins which bore the name of King John, there was discovered a class of round silver halfpence of about the right date which bore the legend **IOHANNES**. These coins were naturally claimed as supplying at any rate a fragment of the missing coinage, and a number of triumphant letters concerning them were published in Sainthill's *Olla Podrida* (vol. i (1844), pp. 215-18; ii (1853), pp. 158-9). In Grueber's handbook (p. 42), which was published in 1889, they are mentioned as English coins, and even as late as 1903 in the Mordaugh sale catalogue they were regarded as unquestionably coins of our English King John. The only symptoms I have seen of a change of opinion are that neither Hawkins, Oman, nor Brooke refers to them. Yet no one, I think, would nowadays claim these halfpence as part of the regular English coinage, a by-product of the short cross series.

Let me first describe the coins:

Obverse.

Filleted head to r. within a beaded circle, cut off at the neck by a row of annulets.

Reverse.

Cross potent within a beaded circle; in each angle of the cross, facing inwards, is a fleur-de-lis.

I. *IOHANNES: *ELIS:DE:[U***U]ING:
[Pl. XIX. 1.]

Wt. 8.8 grains. (Sainthill, i, Pl. 21, no. 23; Montagu Sale, 1896, lot 385; British Museum.)

II. Unrecorded. *ELIS:A:[U**]VE:
(Sainthill, i, Pl. 21, no. 25.)

III. *IONANNES: *R[7I**B]LVHT:
[Pl. XIX. 2.]

Wt. 8.3 grains. (Sainthill, ii, Pl. 28, no. 3; British Museum.)

IV. *IONANNES: *R[V]VLVLVHT:
The same die as no. III. The same die as nos. III and V.
[Pl. XIX. 3.]

Wt. 9.5 grains. (Murdoch Sale, 1903, lot 271; Lord Grantley's Collection.)

V. *IOHANNES *[*]N[*]LVLVHT:
The same die as nos. III and IV.
[Pl. XIX. 4.]

Wt. 8.7 grains. (Sainthill, i, Pl. 21, no. 24; Montagu Sale, 1896, lot 384; British Museum.)

VI.]ANN[*ROGER[***]N
[Pl. XIX. 5.]

Wt. 8.6 grains. (British Museum; perhaps the same as Sainthill, ii, p. 159.)

VII.]OHANN[]RDEIH[
(Lindsay, *Remarkable Medieval Coins*, Pl. 3, no. 45.)

Ruding mentions in vol. i (p. 181) a halfpenny of London in the possession of the Earl of Pembroke.

It was presumably the same as or similar to nos. III, IV, and V in the list. These appear to be all the recorded specimens. In the Bergue sale catalogue, 1873, it is remarked that six of these coins were discovered in Ireland "about 30 years ago". The above list probably includes these six coins. The coin no. V may not be identical with that mentioned in Sainthill, vol. ii, p. 159, in which case nine coins in all are on record.

It will be as well to examine the reasons why these coins cannot be attributed to King John of England. There are three main reasons, provided by the weight, the type, and the moneyers. The average weight of these coins is about $8\frac{1}{2}$ grains; the average weight of a penny of King John is 22 grains. These halfpence are therefore considerably too light. The type of the coins does not agree with the English coins of the time. One would expect that a halfpenny of the short cross period would bear some form of short cross, as indeed the earlier of John's Irish halfpence do. Instead, we find a type distantly related to coins of Stephen, and following closely a coin of William the Lion of Scotland. Neither of those arguments is conclusive; a third, however, seems to me to be so. If these coins were struck as the halfpence corresponding to the short cross coinage, they must certainly have been struck by the same moneyers. Of the three legible moneyers' names *Elis*, *Raul*, and *Roger*, none occur on short cross pennies of John, though they do occur on short cross coins at other periods. An *Elis* is known at London and Oxford in class VII (Henry III). A *Raul* is known at London, Exeter, and Northampton in classes I and II (Henry II—

Richard I). A *Rauf*, but not a *Raul*, occurs at London, Canterbury, Chichester, Lincoln, and Winchester in class V (John). The London moneyer later spells his name as *Raulf*, but never in this reign. A *Roger* is known in classes VI-VII (Henry III-Edward I) at Canterbury, class I (Henry II) at Exeter, but never during the reign of King John. It would be impossible, then, to maintain, as was at one time done, that the moneyers who struck the *Johannes* halfpence were moneyers of King John of England.

It is equally impossible to attribute these coins to the reign of John in Ireland. The coinage of John there falls into two well-defined periods. The first coinage was of halfpence and farthings [Pl. XIX. 8-10] and was issued when John was still only Lord of Ireland (1185-1199). The second was of pence as well as halfpence and farthings, and was issued when he was also king of England. For the first coinage we have no specific order, but that it already existed is implied in the grant of Leinster to William Marshal, Earl of Pembroke, by Henry II in 1189. In this document the King reserves amongst other things the right of coinage (Hargreaves MSS., vol. 313, fol. 43 b). As John is not known to have used the title Lord of Ireland before 1185, the coinage probably commenced during his visit to Ireland in that year. It was still being struck in 1200, for in the document appointing Meiler Fitz Henry Justiciar of Ireland in that year John reserved to himself all the prerogatives of the crown, including "monetam et cambium" (Aquila Smith, *Num. Chron.*, 1863, p. 160). For the second coinage we have perhaps the order in the document appointing John de Grey Justiciar of Ireland

in 1210. A new coinage was then ordered, to be current equally in England and Ireland and to consist of round pence, halfpence, and farthings (Rindig, *Annals*, p. 180, sub 1210). The moneyers in the earlier series are all well known; they are *Adam*, *Hugh*, *Nicholas*, *Norman*, *Roberd*, *Thomas*, and *Turgod* at Dublin; *Gefrei*, *Marcus*, and *Willelm* at Waterford; *Walter* and *Simund* at the Ril. (? Kil) and *Ren* (? Ken) mints (?Kilkenny). Of the later series the moneyers are *Iohan*, *Roberd*, and *Willelm P.* at Dublin; *Wace* and *Willelm* at Limerick; *Willelm* at Waterford. None of the names on our halfpence occur in this list; this seems fairly conclusive evidence that the coins were not struck by the English King John in Ireland. We have again the corroborative evidence of weight. John's Irish halfpence of both issues consistently weigh over 10 grains, in fact, precisely half the English penny, as they should. The types of both his issues are related naturally to the English coinage of the time. Neither of these qualifications is filled by the *Johannes* halfpence, and we therefore cannot regard them as an Irish issue of our King John. We are forced instead to find some other John for whom the coins may have been struck.

Let us therefore examine now what evidence there is for the date, the place, and the attribution of these coins. The presence of moneyers' names makes it fairly certain that these are coins of the British Isles, for at this time moneyers' names only occur elsewhere in Scandinavia, and there is nothing that I know of to connect the coins with it. The most important point is probably that the only recorded find spot is Ireland where, as we have seen, six were found. The only

coins which they follow closely in design are pennies of the first type of William the Lion of Scotland [Pl. XIX. 11], a type ultimately derived from coins of Stephen. William came to the throne in 1165; one would therefore expect these coins to have been made not very long after this date. The resemblance is confined to the reverse; the obverse of the halfpence has an unusual profile type and is distinguished from all regal coins of the time by the absence of any marks of royalty. The figure bears neither crown nor sceptre, and the name is not followed by any form of title; this occurs also on some of the Crusader coins. One might therefore expect them to be issued not by a king but by some person without royal authority. Again, the use of the form **DG** with the moneyers' names, while not confined strictly to Scotland and Ireland, is much commoner there than elsewhere; for instance, *Folpolt de Pert* in Scotland and *Willelmus de Wa...* in Ireland. On one group of *Johannes* halfpence the letter **T** is indicated by the form **Ƨ**, which does not occur, so far as I know, on short cross coins. It is found, however, on a few Irish pieces of the time, such as some of the farthings with the legend **PATRICI**.

We must therefore look for a ruler named John of the late twelfth century in either Ireland or Scotland who would have been in a position to issue a coinage of his own. By a fortunate chance precisely such a ruler is known to us, and, what is more, is already known to have struck coins.

In a hoard of coins found in Ulster in the early nineteenth century there were a number of farthings which bore on the obverse the legend **PATRICI**. The hoard contained mostly short cross pennies and

Irish pennies of John as king. There were, however, a few Irish halfpence and farthings of the earlier issue and five pennies of William the Lion. In publishing this hoard (*Num. Chron.*, 1863, p. 149) Aquilla Smith produced strong arguments for attributing these farthings to the rule of John de Courci, Justiciar of Ireland during part of the reign of Henry II.

This tumultuous character, whose exploits have entered the realm of mythology and are still remembered in Ireland, is too well known to require any historical discussion here. Suffice it to recall the chief events of his life. In 1176 he accompanied William Fitz Aldelm, Henry II's minister, to Ireland. In the next year he conducted an epic campaign in Ulster on his own responsibility, and seized it for himself. In 1180 he married the daughter of the King of Man, thereby acquiring semi-regal status, although the marriage of course conferred no title on him. He became Chief Justice of Ireland in 1185, from which post he was removed in 1189. He retired to his northern estates till 1204, when he left Ireland; the rest of his life was spent in a series of miscellaneous adventures which have been magnified to heroic dimensions, but do not concern us here.

The farthings attributed by Aquilla Smith to John de Courci fall into three classes. They all have on one side the legend **PATRICI**, though in the first class the letter **ᚠ** replaces the more usual **T**. This class reads on the reverse **GOANDQVRQI**, interpreted as a form of *Ioan d' Curci*. The second class has a similar obverse, and reads **DE DVNO** on the reverse [Pl. XIX. 6]; the third class, also with a similar obverse, reads **CRAᚠFEVF** on the reverse [Pl. XIX. 7]. These

legends clearly indicate the mints of Downpatrick and Carrickfergus. The type of the second class, the Downpatrick farthings, is a distant copy of the reverse of William the Lion's third type of sterling the crescent and pellet type [Pl. XIX. 12], dated by Burns from about 1175 to after 1189. The first and third types resemble the reverses of some of John's halfpence as Lord of Ireland [Pl. XIX. 8 and 9]. Aquilla Smith thought that those with John de Courci's name were struck before his fall from power in 1189, those with only the mint names Down and Carrickfergus were struck after that date.

Several close points of analogy exist between these three types of farthings and the *Johannes* halfpence. In the first place the lettering is very similar to that on these farthings; in particular the \mathfrak{G} for \mathfrak{T} occurs on both. Secondly the use of $\mathfrak{D}\mathfrak{E}$ for "of" occurs on the farthings, both in the mint-name $\mathfrak{D}\mathfrak{E}$ $\mathfrak{D}\mathfrak{V}\mathfrak{N}\mathfrak{O}$ and in the ruler's name \mathfrak{D}' $\mathfrak{Q}\mathfrak{V}\mathfrak{R}\mathfrak{C}\mathfrak{I}$. Though the types are not identical, both farthings and halfpence are copied from coins of William the Lion. There is therefore much to connect these halfpence with the established coinage of John de Courci.

A possible difficulty occurs in the reverse legends. It will be seen that the legends in the list above do not agree with those previously published. After a close examination of the coins themselves, I have no doubt that the legends suggested here for nos. 1, III, V, and VI, the coins in the British Museum, are correct. In the original publications it was conjectured that the final word on no. I was $\mathfrak{P}\mathfrak{I}\mathfrak{N}\mathfrak{G}$ for Winchester or $\mathfrak{P}\mathfrak{I}\mathfrak{L}\mathfrak{T}\mathfrak{V}\mathfrak{N}\mathfrak{E}$ for Wilton, and on nos. III-V was $\mathfrak{L}\mathfrak{V}\mathfrak{N}\mathfrak{D}\mathfrak{E}$ for London. There is no doubt that these legends and

the consequent mint attributions are wrong. On the other hand the legends, as read by myself, do not suggest any close analogies with the Downpatrick or Carrickfergus coins, nor even any obvious mints. The coin no. I, of *Elis*, may read *Elis de Diveline* or some similar legend. This would be intelligible, for during the period between 1185 and 1189 John de Courci could have struck coins at Dublin. Coin no. II, also of *Elis*, might also be of Dublin; I am doubtful if the *A* which Saintbill read is correct. There is, however, no mint-name to be made of the coins III-V, all from the same reverse die. The name is clearly *Raul Blunt*, a different *Raul* from the well-known Scotch moneyer of the period whose name was *Raul Derling*. Coins VI and VII do not add much; one is too ill preserved, the other probably misread. The letters recorded for no. VII suggest no obvious mint. To my mind the name of *Raul Blunt* provides the clue to all these coins. This is certainly the Christian name and surname of the same moneyer. At this period similar legends occur both on the coins of England and Scotland, for instance, *Roger of R.* or *John Chic* on the short cross coins of Canterbury or *Peris Adam* at Roxburgh. I suggest that all these reverse names should be read as the moneyer's Christian and surnames, not as moneyer's name and mint. *De* is intelligible in either case; we have the analogy both of *Willelmus de Wa...* for *De* with a mint name and *Goan d' Qurci* for *D'* with a surname at this period. I suggest therefore that the moneyers' names were *Elis de Diveline* (i.e. Dublin), *Raul Blunt*, and *Roger*, perhaps *de Man*, and that these may have been John de Courci's moneyers at the mints of Downpatrick and Carrickfergus.

That some such coinage as this was already in existence in Ireland seems to be implied in the ordinance of John dated 1207 (Aquila Smith, *Num. Chron.*, 1863, p. 161), in which he says "nullus vendat vel emat per aliam monetam quam per monetam nostram Hibernie, quoniam eam per totum regnum currere volumus et non aliam". This implies the existence of a competitive coinage, which was presumably of poorer quality than the English. This is supplied by the coins of John de Courci which are consistently a grain or two lighter than the corresponding coins of John. Further, the fact that John as Lord of Ireland struck both round halfpence and farthings suggests, perhaps, that there were already in existence halfpence as well as farthings which required replacement. The great rarity of the John de Courci's halfpennies may be partly due to their suppression when John's new and prolific mints were opened.

There is one further problem connected with these coins, namely, whom the head on the obverse is intended to represent. In an article published in the *Num. Chron.*, 1864, p. 96, Aquila Smith proved beyond doubt that the full-face head on the halfpennies of John as Lord of Ireland represented not the ruler himself, who was then but a child, but St. John the Baptist. This head appears to wear a fillet, and has no regal emblems. The question arises as to whether the profile head on the John de Courci halfpence, which is also filleted, represents the ruler or the saint. Beneath the neck of this head there is consistently placed a row of annulets. It would be possible to interpret these as either drops of blood or as a coat of chain mail. I am strongly inclined to regard them as the latter, though

I do not think this can be proved. We know from explicit statements that he was devoted to the cult of St. Patrick. We know also that he founded the Priory of St. John at Downpatrick in 1183 (*Num. Chron.*, 1864, p. 112); but it seems to me that a "baronial" coinage such as this would be struck on the analogy of the irregular issues of the reign of Stephen, where each baron struck in his own name and with his own effigy.

When this article was already partly written, I received from Mr. J. B. Caldecott a letter in which he suggested, entirely independently, the same attribution for these halfpence. I regard this as a strong confirmation of my view. The possibility of reattribution as interesting as this will, I hope, help to direct the attention of numismatists to the most neglected branch of British numismatics, the Irish series.

2. AN ADMISSION TICKET TO THE CEREMONY OF TOUCHING?

ON PL. XIX. 13 is illustrated a copper ticket in the British Museum which escaped the vigilant eyes of the editors of *Medallic Illustrations*. It has never yet been published, and is of sufficient interest to deserve a short notice. The following is a description of the piece:

Obv. A reproduction on a minute scale of the seated figure of Henry VIII which was first used on the sovereigns of his third coinage in 1545. Around it is the legend HOC·OPVS·DEI. The initial mark is a harp.

Rev. In five lines the legend ANNUNCIATIO BEATÆ VIRGINIS 1640.

Its diameter is $1\frac{1}{16}$ in. and it is struck on a thin sheet of copper by the same process as the Harrington farthings. The small bite from the side is caused by a fault in the mechanism of punching the flan from the sheet. Similar mistakes often occur on the farthings. The letters, though not the figures of the date, are struck in the die with punches, and two at least of them, A and P, contain slight flaws which are reproduced exactly on some of the shillings of the Tower Mint with the mint-mark Triangle (1639-40). It is therefore certain that this piece is a product of the Royal Mint in or about that time.

The purpose of the piece is not self-evident. The reappearance of the portrait of Henry VIII in 1640, almost but not quite a century after the Act of Supremacy, defies explanation. Neither obverse nor reverse legend appears to have any connexion with him. The seated figure may have been regarded merely as a regal effigy, but no one could have mistaken the face with its massive rounded beard, even on this small scale, for Charles I.

The following possible explanation of the ticket occurred to Miss Farquhar and myself independently. On page 85 of her book on *Royal Charities* (*British Numismatic Journal*, vol. xii, p. 123) is reproduced the draft of a letter from Charles I to Sir William Parkhurst, Warden of the Mint, giving instructions concerning certain admission tickets to the ceremony of Touching for the King's Evil. The letter is dated April 1, 1640. In it occurs the following passage :

Our pleasure is and wee doe hereby will and command you to give present order unto our servant Edw^d Greene, chief Graver of our Mint, to make both presently and from time to time such number of tokens of bras, Copper

and such other metall as our Sergant shall give directions for under his handwriting, every one of w^{ch} to be in bredthe the compasse of an Angell and that the said Tokens be returned to the Warden of our Mint, whereby he may know what number of Angells have been expended in this our said service (*Calendar of State Papers, Domestic*, vol. cclxxxvi, April 1st).

Miss Farquhar lamented the fact that there could be found no tickot or tickets to correspond with this order. Obviously the fact that they had to be returned to the Warden of the Mint made it unlikely that many would survive. The new piece cannot have been the one ordered in 1635, since the date it bears is five years too late. The instructions were, however, to strike such pieces "both presently and from time to time", and our piece may well belong to the second category. It is precisely "in bredthe the compasse of an Angell". The obverse legend is most suitable to a ceremony half religious, half magical such as this; in fact Miss Farquhar has already suggested that a piece with the same legend, HOC OPVS DEI, and the reverse legend BEATI PACIFICI may have some connexion with this rite (Christmass, *Copper and Billon Coins*, p. 60; Montagu, *Num. Chron.*, 1885, pp. 78-9; *Copper Coins*, p. 5; Sale, Fourth Portion, lot 15; Miss Farquhar, *B.N.J.* XIII, p. 123). The reverse legend must indicate a date, Lady Day, or March 25, which since it falls near Easter may have been the day on which the ceremony was held in this year. This piece seems therefore to fill precisely the requirements of the ticket ordered in the letter, and except for the presence of the figure of Henry VIII, for which I do not pretend to account, the explanation seems satisfactory.

DEREK ALLEN.

MISCELLANEA.

MUHAMMADAN COINS IN THE CONVENT OF THE
FLAGELLATION, JERUSALEM.

THE Museum at the Convent of the Flagellation in Jerusalem possesses a small but very interesting collection of Muhammadan coins. Before the War the collection was at the large Convent of the Saint-Sauveur de la Custodie de la Terre Sainte. It had been assembled by Father Giacinto Tonizza¹ who had also prepared a summary catalogue. During the War it had to be hidden, like other valuable collections, from the Turks. Some pieces were, however, unavoidably lost. When the Studium Biblicum Franciscanum at the Flagellation was created the Museum collections at the Saint-Sauveur were transferred there, where they found a suitable dwelling-place. Thanks to the manuscript catalogue (in Italian) of Father Tonizza it was an easy matter to rearrange the Muhammadan coins (Umayyad and 'Abbasid). The following is a brief list:

I. Coins of Sassanian type (17 pieces in all):

(a) *Umainad Governors.*

with Khusrau II's name: Nih. 25.

'Ubadallah ibn Ziyād: Baṣra 59, 61; Nih. uncertain date.

al-Hajjāj ibn Yūsuf: Bishāpur 81; Istakhr 80.

(b) 'Abbāsid Governors in Tabaristān.'

'Umar ibn al-'Alā (name in Pehlevi): 120.

" " (name in Kufic): 122, 124, 128.

Sa'id: 125, 127.

Hand: 138.

Mukatil: 139.

Arzūt coins: 134, 139.

¹ Born at Celleni in the province of Viterbo, Italy, on the 16th July, 1866, he died Bishop of Tripoli (Libya) on the 19th April, 1935.

² There is one example of Khurshid the Ispahbād of Ṭabaristān dated 106.

AFZŪT coins (with name Ma'add in Kufic in the margin):
138 [fig. 1]. This is unique.



FIG. 1.

II. Coins of Byzantine type (20 pieces).

III. Pure Muhammadan type (195 pieces):

(a) UMAIYAD: *N* 4; *R* 108; *Æ* 83.

N: years 79, 94, 95, 98.

R: Ardashir-Khurra 90, 94, 95 (2 specimens);
Istakhr 96, 97 (2), 98 (2); al-Basra 100 (3), 101 (2);
al-Balkh 115; al-Taimara 96; al-Jazira 129, 130;
Hulwān 93 [fig. 2]³; Darābjird 92 (2), 95 (2), 97;



FIG. 2.

Damascus 80, 88, 90, 93, 94, 98, 100, 102, 117, 121;
Rāmhurmuz 90; Sabūr 92 (2), 97; Sās 94; Saḳ al-
Ahwāz 94, 96 (3); Kirmān 94, 103; al-Kafa 100,
101, 128 (2) [Interregnum]; Maḥr 97; al-Mubāraka

³ This is the only recorded coin of this mint under the Umayyads.

119; Marw 91, 92, 95; Herāt 91; Wasit 85 (3), 87, 88, 89 (3), 90 (3), 91 (3), 93 (3), 94, 95 (2), 96 (2), 98, 99 (2), 105, 106, 107 (2), 108, 109, 112, 114, 115, 116, 117, 119 (2), 120, 121 (2), 123 (2), 124 (2), 125, 126 (2), 127, 129, 130.

Æ: (i) with symbols: triangle, vase, pomegranate, eagle or dove in flight; tree or palm-branch, candleabra (12 specimens in all).

(ii) with name of mint: al-Urdunn (3); Īliya (4); Ba'ulbekk (4); Harrān (1); Ĥims (3) [one with jerboa instead of elephant]; Darābjird (2); Damascus (16); Tabariya (5); 'Ammān (1); 'Askalan (2) [like that in *Num. Chron.*, 1935, Pl. IX. 5]; Rakka (1); Ramla (4).

(iii) with mint and date: Damascus: 11[-], 12[-], 126; Wasit 120, 12x.

(b) 'ABBĀSID (293 specimens):

al-Saffāh: A: al-Baṣra 133, 134 (2), 136 (2); al-Kūfa 133, 134, 136.

al-Manṣūr: A: Madīnat al-Salām 157.

A: al-Baṣra 140, 141 (2), 142, 143, 144, 145, 146 (3), 147; al-Raiy 146, 147; al-Muḥammadiya 149 (2), 150, 151, 152, 153 (2), 155, 158; al-'Abbāsiya 156; al-Kūfa 137, 140, 141, 145, 146 (2); Madīnat al-Salām 148, 149, 150, 151, 152, 153, 154, 155, 156 (2), 157 (2), 158 (4).

al-Mahdi: A; al-Muḥammadiya 167.

A: Armlniya 167: al-Baṣra 161, 165 (2), 167; Madīna Jaiy 162; al-Sāmiya 165; al-'Abbāsiya 161; al-Muḥammadiya 160 (2), 163, 166, 167; Madīnat al-Salām 159 (2), 160 (3), 161 (2), 162 (2), 163 (2), 164 (3).

al-Rashīd: A 53: Balkh 186 (2), 187 (3), 189; Jaiy 182; Madīna Zaranj 181; al-Muḥammadiya 180, 181 (3), 183, 184, 185, 186, 187, 188, 189 (2), 190, 191; Madīnat al-Salām 173 (2), 179 (2), 180 (3), 181 (3), 182 (2), 183, 184, 185 (3), 186, 187 (2), 188 (2), 189 (3), 191, 193 (2); Uncertain 170, 185, 18[-].

al-Amīn: A 4: Balkh 196; Madīnat al-Salām 195 (3).

al-Ma'mun: A: Miṣr 217.

AR 4: al-Kūfa 205; al-Muḥammadiya 201; Madīnat al-Salām 198, 199.

al-Mu'tasim: AR: Damascus 225.

al-Mutawakkil: AR: Damascus 247.

al-Mu'tamid: AR 4: Samarrā 276; Madīnat al-Salām 276; Nişībīn 273, 274.

al-Mu'tadid: AR 13: al-Ahwāz 281, 288; al-Baṣra 289; Tustar-min al-Ahwāz 289; Samarrā 282; Madīnat al-Salām 280, 281 (2), 285; al-Shash 281; al-Moṣul 284; Nişībīn 285; Wasiṭ 281.

al-Muktafi: AR 16: al-Rafīka 292; Rā's al-'Ain 290; Samarrā 294; Madīnat al-Salām 291, 292; 294 (2), 295 (4); Hulwān 294; al-Kūfa 290; Nişībīn 289, 290; Wasiṭ 292.

al-Muqtadir: AR 49: al-Ahwāz 319; al-Baṣra 307; Harrān 315; Rā's al-'Ain 301; Samarrā 298, 300, 301, 305, 308, 312, 316; al-Shash 308; Shīrāz 303; Tarsūs 319; al-Kūfa 299, 303, 308, 309, 311, 317; Madīnat al-Salām 297 (2), 298, 301, 302, 303, 306, 307, 308, 309 (2), 310 (2), 311 (2), 312 (2), 318 (2), 317, 318 (3), 319 (2), 320 (3); Moṣul 302.

al-Kāhir: AR 13: al-Baṣra 320 (2); Hulwān 320; Samarrā 321; al-Kūfa 321; Madīnat al-Salām 321 (7); Wasiṭ 321.

al-Rādī: AR 20: al-Ahwāz 323; al-Rafīka 322, 323; Samarrā 323; Madīnat al-Salām 322 (2), 323 (3), 324, 325 (3), 326 (2), 327 (2), 328, 329; Wasiṭ 323.

al-Muttaḥi: AR 3: al-Baṣra 330, 332 (2).

al-Mustakfi: AR 5: al-Kūfa 344; Madīnat al-Salām 333 (2), 334; Wasiṭ 333.

Also the following 21 bronze coins:

Without date (2 specimens); Damascus (3 with date obliterated); Rafīka 189 (3 specimens); Ramla 227 (4); Kinnisrīn 182; al-Kūfa (5 illegible dates); Moṣul 205 (2); Uncertain 168.

Coins of various dynasties:

ṬULŪNIDS: Aḥmad ibn Ṭulun: AR: Rafīka 268.

Khūmarawaih: A: Rafīka 273.

- IKHSHĪDIDS:** Muhammad al-Ikhshīd: *Ar*: Damascus 333 (2).
 Abu-l-Kāsim: *Ar*: Ṭabarīya 340, 8[--].
- SĀMĀNIDS:** Ismā'īl ibn Aḥmad: *Ar*: Andarāba 293.
 Naṣr II ibn Aḥmad: *Ar*: al-Shāsh 338.
 Nuḥ I ibn Naṣr II: *Ar*: Bukhārā 337; Nisābur 340.
- HAMDĀNIDS:** Naṣir al-Daula: *Ar*: Madīnat al-Salām 330.
 Naṣir al-Daula and Saif al-Daula: *Ar*: Antiochia(?) 331; Madīnat al-Salām 331 (4); Mūsul 344; Wasit 331.
- BOWAIHIDS:** 'Imād al-Daula: *Ar*: Uncertain 324.
 'Imād al-Daula and Mu'izz al-Daula: *Ar*: al-Basra 337; Tustar-min-al-Ahwāz 334; Madīnat al-Salām 334 (2), 335 (2).
 Mu'izz al-Daula and Rukn al-Daula: *Ar*: al-Kufa 341; Madīnat al-Salām 342, 345.
 Rukn al-Daula and 'Aḍud al-Daula: *Ar*: Nisābur?
- SALLARIDS:** Marzabān ibn Muḥammad: *Ar*: Armenia 333 [fig. 3].



FIG. 3.

FĀṬIMID COINS: 13.	} Not yet classi- fied.
AYYŪBID COINS: 131.	
COINS OF THE MAMLŪK SULTANS: 46.	

[Père] PAULIN LEMAIRE.

ROMAN COINS FROM POOLE HARBOUR.

A small hoard of 84 antoniniani found in an allotment at the east end of Week's Quay near Poole Harbour in May 1936 and declared Treasure Trove after an inquest held by Mr. J. W. Miller, H.M. Coroner, was sent to the British Museum for examination.

It contained the following coins (references to Cohen, *Monnaies frappées sous l'Empire Romaine* (2nd ed.)):

GORDIAN III. C. 53, 97, 105 (2), 109 (2), 118, 156, 160 (2), 167, 212, 253, 312, 353 (2), 383 (2).

PHILIP I. 3, 9, 165, 198, 244.

PHILIP II. 17, 54, 57.

OTACILIA. 5, 43.

TRAJAN DECIUS. 37.

ETRUSCILLA. 19 (2).

TREBONIANUS GALLUS. 88.

VOLUSIAN. 25.

VALERIAN I. 230.

J. A.

ERRATA.

PAGE 160: The illustration above no. 3 is of the coin described on p. 162.

PAGE 161: The illustration to 5a is of coin no. 5.

REVIEWS.

Catalogue des Monnaies Arabes et Turques du Cabinet Royal des Médailles du Musée National de Copenhague. By J. ØSTRUP. Levin and Munksgaard, Copenhagen. 1938. Pp. 367, 7 plates. 13s. 6d.

THIS Catalogue of the Arabic and Turkish Coins in the Copenhagen Museum was compiled by the late Professor Østrup. Although the author modestly described himself in his preface as merely "*un dilettante sur le terrain de la numismatique*", his work furnishes oriental numismatists with an important survey and classification of material to which their attention might not otherwise be directed. Most classes of Muhammadan coins are represented in the work with the exception of those of Persia and the countries to the east, a very considerable *lacuna*. Some 3,000 coins in all are described and, where known, their denominations noted. The Arabic legends are given throughout in a somewhat pedantic and not always consistent transliteration in Roman script, and a translation is added. Much space might have been saved by collecting the legends at the end in an appendix. Interesting details of provenance are interspersed throughout, and at the end there is a table of Oriental coin-finds made in Denmark. The Plates, which are very well executed, are unfortunately limited to seven. The reverse of coin no. 28 is photographed upside down. The illustration of the Umayyad *dīnār* (no. 99) seems to me to indicate that the early date A.H. 75 given to it by the author is very much open to question. The Abū Muslim coin (no. 176) does not read *أمير محمد* but *أمير آل محمد* "*Amīr of the family of Muhammad*".

One section of the Catalogue which I have had occasion to examine very carefully, with the added advantage of casts of the coins themselves kindly sent me by Mr. Galster, has been very disappointing. These are the Muhamniadan coins of Sassanian type struck by Umayyad governors in the Eastern Provinces (nos. 61-69) and by 'Abbasid governors in Tabaristān (nos. 70-90). Of these, nos. 61 and 69 are not Muhammadan at all but Sassanian; no. 67 is dated 60 and not 72. no. 71, 95 not 105, no. 73, 120 not 130, and 89, 141 and not 142. In this last case the so-called

"*caractères arabes*" are Pehlevi. On coin no. 86 the doubtful Arabic word is quite clearly in Kufic script *يحيى* *Yahyā*, one of the known governors, and the date is really 129 and not 139. Coins from 91 to 98 were issued by the Īspahbads or native princes of Ṭabaristān before the Arab conquest of the country and do not therefore belong to a Catalogue of Arab Coins. [Nos. 94 and 98 incidentally should be dated 91 and 95 respectively.] The coin (No. 72) which is ascribed to the governor *Khālīd* and dated 119 is actually an anonymous or *AZUT* coin with the date 136. The blame for the inaccuracies in this section does not lie, however, with the author but, *mirabile dictu*, with his colleague Professor Arthur Christensen, who described these particular coins. If Professor Christensen had taken the trouble to consult Olshausen's *Die Pehlwi-Legenden*, written as long ago as 1843, in which these Copenhagen coins were already described, he would have avoided disseminating error and would have incidentally extended his well-known Sassanian researches to a subject in which he is singularly inexpert.

In spite of the above unfortunate blemishes we must indeed be grateful to Professor Østrup for his painstaking labour of love, and also to the Carlsberg Foundation for their financial support of a publication of this nature. *Larga fluant.* J. W.

Myntgravør Ivar Thronsdens Medaljer, Jetonger og Merker.

By R. STØREN and HANS HOLST. Oslo: Aschehoug & Co. 1937. Pp. 200, 43 plates. 15s.

THIS book, issued as a publication of the University of Oslo's Coin Cabinet through the generosity of Director Johan Jørgensen, covers the lifework of the great Norwegian medallist Ivar Thronsdens; nearly 500 medals dating from 1881 to 1930 are described and the majority illustrated. The book has been perhaps illustrated too freely. Much of the work was naturally executed to order and the artist had really little say in it. A better impression would have been made if the illustrations had been limited to specimens in which the medallist had been allowed free scope for his creative power and his unusual gift for composition.

The introduction by Mr. Holst, with an English summary, deals with the history of the rise of a native school of medallists in Norway in the late nineteenth century and its secure establishment by Thronsdens. The volume, which is

admirably indexed, is a fine memorial to the artist, who died in 1932 at the age of 78, and to the patriotism of its authors and Director Jorgensen. It should do much to make the artist's work more widely known. J. A.

The Coinage and Metrology of the Sultans of Delhi. By H. NELSON WRIGHT. Published for the Government of India. Delhi. Obtainable from the High Commissioner for India, India House, Aldwych, London, W.C. 2, or through any bookseller. Pp. xx + 422, 24 plates and map. 45s.

THE coinage of the Sultans of Delhi has long been Mr. Nelson Wright's special interest, and this volume, which is based on the fine collection in the Delhi Museum, now including the Nevill and Nelson Wright Collections, is planned as a *Corpus* of the subject. Coins are included from collections all over the world, and the result shows what remarkable progress our knowledge of the period has made since the publication of Edward Thomas's classic work in 1871. Mr. Nelson Wright describes roughly five times as many coins as Thomas. As the work is professedly a "*Corpus*", the coins should rather have been arranged chronologically on the plates instead of being in five different sets of plates according to the collections they are in. The volume has been printed by the Oxford University Press, and the plates, which are of the highest quality, were made by Messrs. MacLagan & Cumming.

Mr. Nelson Wright is concerned with coins and metrological problems only and not directly with chronological or historical points; nevertheless he is able incidentally to improve our knowledge on many points, especially as the *Cambridge History of India*, vol. iii, completely ignores the coin evidence. Not only does the existence of coins confirm the fact of the brief reigns of Shihab al-Din 'Omar and of Shams al-Din Kaiumās, but coins add to the genealogical tables Firuz Shah Zafar son of Firuz Shah, Firuz Shah son of Abu Bakr and Ahmad b. Firuz. Mr. Nelson Wright does not accept the latter, saying that Ahmad "is substituted for Muhammad—presumably an engraver's error"; but quite apart from the improbability of such an error, the coins are not sufficiently scarce for the explanation to be likely.

It is to our knowledge of the currency problems of the period that the volume makes its greatest contribution. The discovery of many new coins, and in particular the

abundant evidence now available of the existence of a system of division by threes unsuspected by Thomas, have made a revision of our ideas of metrology necessary. The decline of the tanka till it became a copper coin and was replaced by the rupee is traced through its long history, which has a close parallel to the history of the Roman denarius; but the parallel may be only superficial, for it would seem that (p. 258) the billon tanka of the Lodis still had as great, if not greater, purchasing power as the earlier silver piece which was certainly not the case with the antoninianus and the silver denarius. The Catalogue has various useful appendices, including a reprint of the article by Nevill and Nelson Wright on the Metrology of the Sultans of Delhi (*J. A. S. B.*, 1924), tables of ornaments, phrases and titles, &c. The results of a long series of assays are given. These are useful as confirming the impression one gets through handling the coins, but assays will have to be conducted on an enormous scale before any satisfactory deductions can be made from them.

We are grateful to the author for his work and to the Government of India for making his researches available in so generous a form.

J. A.

Sylloge Nummorum Graecorum, Vol. III. The Lockett Collection: Part I: Spain-Italy; ed. by E. S. G. ROBINSON, and published for the British Academy by Humphrey Milford and Messrs. Spink & Son. Twelve plates with descriptive text. 15s.

VOLUME III of the *Sylloge* will deal with the fine and comprehensive collection of Mr. R. Cyril Lockett whose range is the whole Greek world. This, the first, part contains the gold and silver of Italy. The copper will be dealt with separately. This innovation, made possible by the size and wealth of Mr. Lockett's collection, has much to recommend it, and the detailed publication of an unrivalled series of copper coins will not only be of much value to the student but do a great deal to encourage and facilitate their collection. The text of the descriptions is much fuller than in earlier volumes and now contains the maximum of information: types, symbols, and inscriptions are now always given.

Some 40 coins of Spain and Gaul introduce the volume, the rest of which contains 650 coins of Italy; among the more extensive series are Tarentum, Metapontum, including

three of the very rare gold pieces, and Thurium. In addition to these long runs, remarkable individual coins catch the eye on every plate. The publication of the magnificent collection in full will be a great achievement for the *Sylloge*, and one which will earn Messrs. Lockett and Robinson the thanks of all students of Greek coins. J. A.

British and Foreign Medals relating to Naval and Maritime Affairs: arranged and indexed by the EARL OF SANDWICH. National Maritime Museum, Greenwich. 1936. (Published by H. M. Stationery Office, pp. 318, 27 plates. 2s. 6d., postage extra.)

THIS is a catalogue of the very fine collection of medals, tokens, &c., relating to naval and maritime matters in the National Maritime Museum. The bulk of it consists of Lord Sandwich's own collection which he has presented to the nation, but it has been augmented by a number of notable gifts and loans from other donors. The result is a large and representative collection containing few, if any, serious gaps, at least in the British series. Lord Sandwich has perhaps cast his net rather too widely and included much that can hardly claim to be of any historical interest. Many of the counters and tokens have no real maritime associations and are included from the accident of having a ship as a type. Henry VIII's supremacy of the Church medal is certainly not naval, nor is a medal commemorating the Prince of Wales's visit to the Argentine in 1925, nor would we have included a medal dealing with the flooding of a town or the building of a bridge. It is perhaps unfair to look such a gift horse as this in the mouth, for it contains twenty-seven plates and only costs 2s. 6d., yet it is a pity it was not planned with more consideration for others than the visitor to the Museum for whom it is primarily intended.

The arrangement is very puzzling, although the admirable indexes make it easy to find a particular medal. Surely the only possible arrangement is historical and chronological, under countries. The arrangement here is professedly geographical, but certain main chronological periods break up the countries. Germany, for example, appears in four sections. Great stress is laid on the maker of the medal, often to the neglect of its historical significance. As very few of the medals can claim artistic merit, the artist is not of importance. The result is that medals which one expects to find together are scattered all over the book, and one finds curious

juxta-positions such as "Opening of the Forth Bridge", "Discovery of America", and "Opening of the Kiel Canal" (p. 228). One hardly expects to find Switzerland in a book on naval medals, yet it is represented—by a medal of Peter the Great by J. Dassier, whose other medals are under France. The medals of Trafalgar come a few pages before those of the Nile. Numerous examples could be quoted of the hopeless lack of logic in the arrangement of the text. The medals illustrated are marked by an asterisk without a plate reference, which would be all right if the plates followed the order of the text, but they do not; for example, three consecutively illustrated medals L 11, LL 1, and LL 3 are not together but on plates XV, XXI, and XX. The double-page arrangement of the text is not satisfactory. The descriptions are crowded together and frequently necessitate a reference to the subject column on the opposite page, which is occupied with matter of minor importance compared with the description of the medal. It is unfortunate that a book on which so much labour has been spent and which contains a remarkable amount of information on its subject should not have been more carefully planned. It ought to have been a book which, like the British Museum Guide to Historical Medals, should be in every history classroom, but we are afraid not even the excellent indexes will overcome the obstacles to its use in this way. J. A.

Die Münzen des Altertums. By DR. MAX MILLER. Schmidt & Co., Berlin. Pp. viii + 183, 34 plates. 14s.

THIS is a very useful handbook for the collector of ancient coins. It covers the whole field of Greek and Roman coins and deals briefly with the coinages of the Byzantine emperors, the Goths and Vandals. The text takes us briefly through the coinage of the ancient world in geographical order, avoiding great rarities and confining itself to the commoner coins, such as the ordinary collector may reasonably hope to obtain. The illustrations are excellent and ample and the descriptions full and accurate. The introductory notes on methods of coining, standards, forgers, and coin collecting are concise and lucid. It is just the kind of book that every collector of ancient coins must have wanted and can be cordially recommended to all interested in the subject. J. A.

Münzbilder der Hohenstaufenzeit; Meisterwerke romanischer Kleinkunst. By ARTHUR SUHLE. Leipzig, Hiersemann. 1938. Pp. 103, 40 plates. 7s. 6d.

PROFESSOR ARTHUR SUHLE has had the excellent idea of publishing a series of enlarged (6 to 8 times) photographs of German bracteates of the end of the twelfth century as specimens of the art of the period. The result is a most attractive book. 40 coins are illustrated in 40 plates, each with descriptive text. The coins come out very well and are most attractive compositions. We have not only portraits of temporal and episcopal rulers but valuable illustrations of the armour and architecture of the period, and a series of pictures like the stoning of St. Stephen at Halberstadt, the Temptation at Falkenstein. Professor Suhle has written a valuable introduction discussing the history of the period and the bracteates in general. His selection justifies his claim that the coins are notable works of art and worthy memorials of a period that produced men like Friedrich Barbarossa and Henry the Lion, and deserve the attention of the student of the art of the period. J. A.

I Bersaglieri nelle Medaglie 1836-1936. By ANTONIO PAGANI. Milan. 1937. Pp. 293 and 290 illustrations. 46-50 lire.

IN commemoration of the centenary of the raising of the first company of the Bersaglieri the author has collected in this volume all the medals, decorations, badges, &c., nearly 300 in number, relating to the corps or to distinguished members of it. Each piece is illustrated and described and when necessary accompanied by historical or biographical notes. The medals are divided into three groups, (a) historical and commemorative, (b) regimental, and (c) medals of associations. The author has done his work very thoroughly and is to be congratulated on having put on permanent record much information that would have been difficult to obtain at a later date. J. A.

The Story of Money as told by the Knox Collection. By STUART MOSHER. Buffalo, New York. 1936. Pp. vi + 77, 16 plates.

THE Knox Collection presented to the Buffalo Museum of Science by Mrs. Seymour H. Knox illustrates the history of currency as a branch of anthropology. After an introduction dealing with the principal great coinages of the

world, the book proceeds to deal with its main subject, currencies in the widest sense rather than coined money. The collection is a remarkably complete one and the work is a handy and accurate guide to the various curious shaped currencies and articles used as medium of exchange. The book is very fully illustrated and gives much information not previously collected in such accessible form. J. A.

Nordisk Numismatisk Årsskrift, 1936, 1937.

THE various numismatic societies of the northern countries, the Swedish, Norse, Finnish, Copenhagen Numismatic Societies and the national Coin Cabinete at Stockholm, Copenhagen, Oslo (University), and Helsingfors, after a conference held in Copenhagen in November 1935, combined to form the Nordisk Numismatik Union and to publish transactions and an annual volume. We have received the first two volumes of the latter for 1936 and 1937. Among the more notable contributors are Messrs. Galster, Holst, Thordeman, Rasmussen, Lindberg, and Person. Many of the articles deal with finds, the more important being Mr. Galster's account of finds in Denmark from 1700 to 1780, Mr. Holst's list of Norwegian finds down to the end of the nineteenth century, and his account of Norwegian law and practice of Treasure Trove. We may also note Mr. Thordeman's list of public coin collections in northern countries. Articles deal also with medals and other aspects of numismatics. The volumes contain German summaries of the contents and an annual report on the various important Scandinavian collections. We wish long life to this new periodical, which has made a most auspicious start under the editorship of Mr. George Galster. J. A.

Deutsches Jahrbuch für Numismatik.

THE German Numismatic Society announces the first volume of the *Deutsches Jahrbuch für Numismatik*. This will take the place of the Berlin *Zeitschrift für Numismatik*, which ceased publication with Vol. XLII in 1935, the Vienna *Numismatische Zeitschrift*, the issue of which ended with its 70th volume in 1937, and the Munich *Mitteilungen der Bayerischen Numismatischen Gesellschaft*, the series of which closed with its 55th volume in 1937. J. A.

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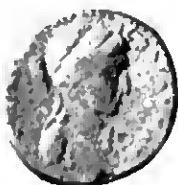
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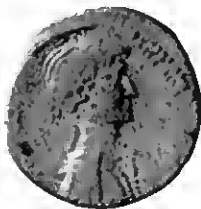
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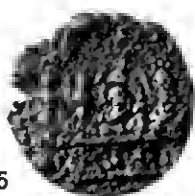
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UNPUBLISHED COINS OF ANTONY AND CLEOPATRA AND OF
SEPTIMIUS SEVERUS



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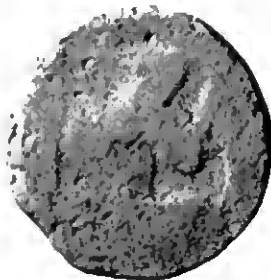
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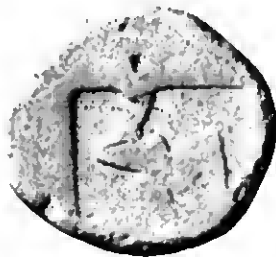
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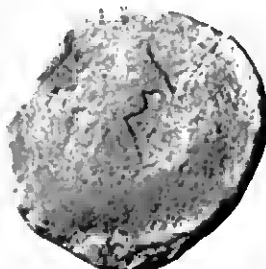
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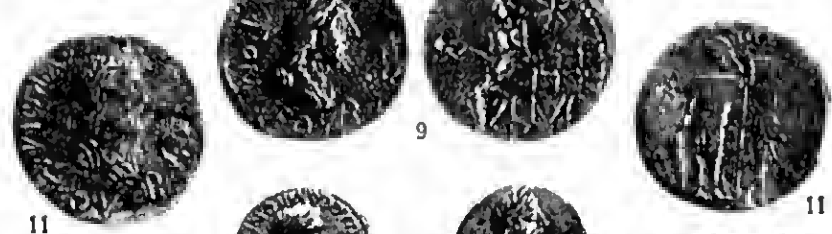
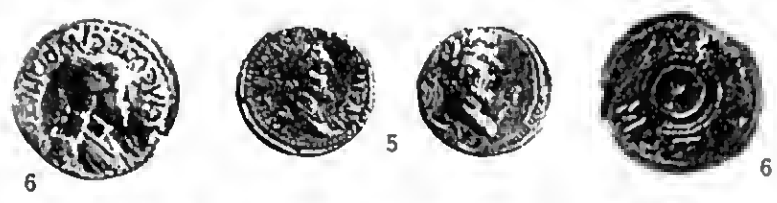
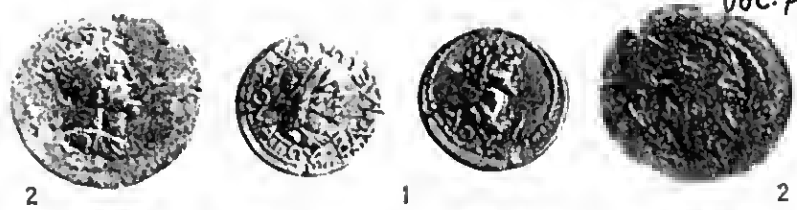
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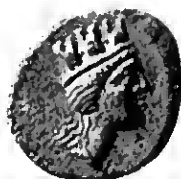
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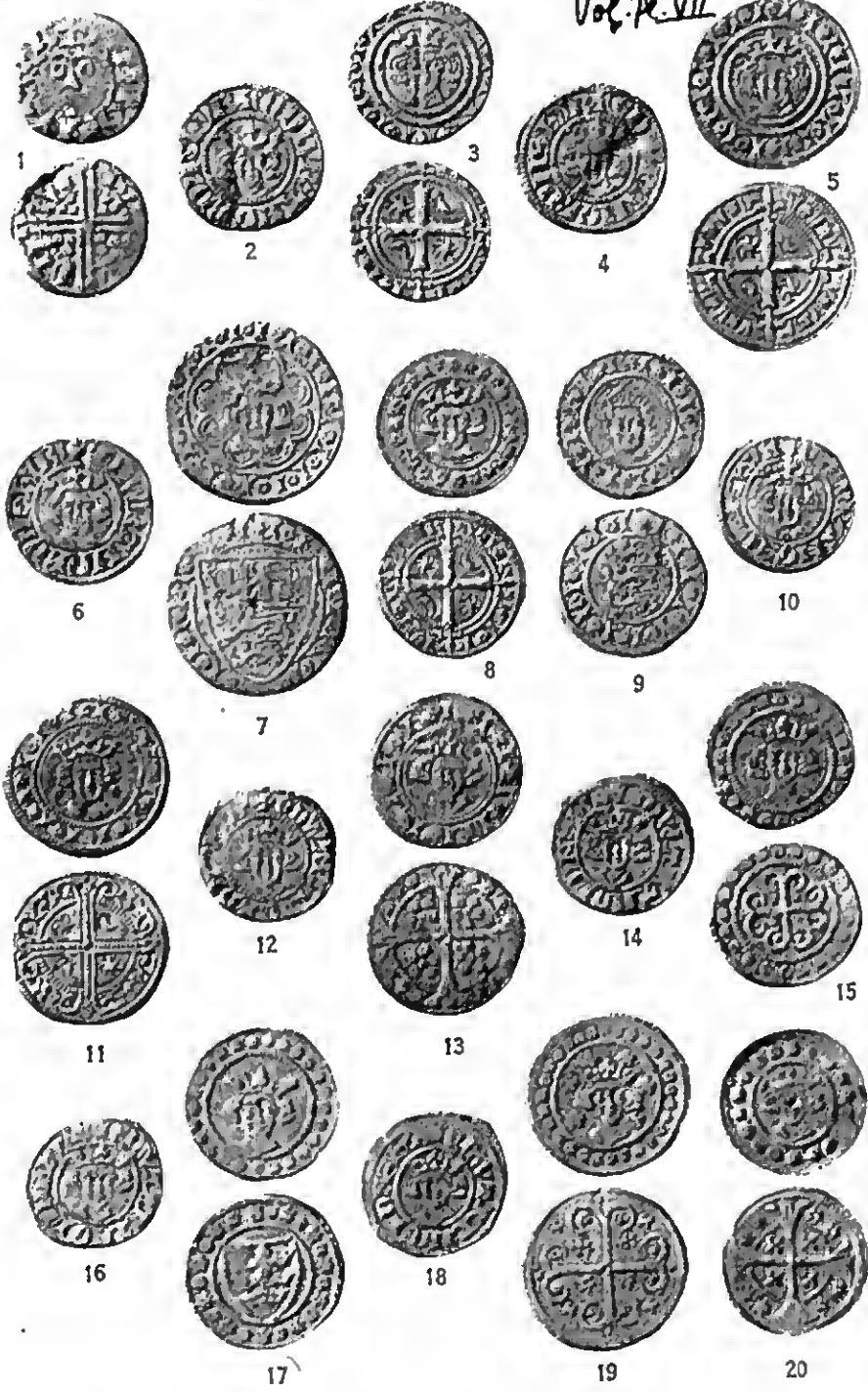
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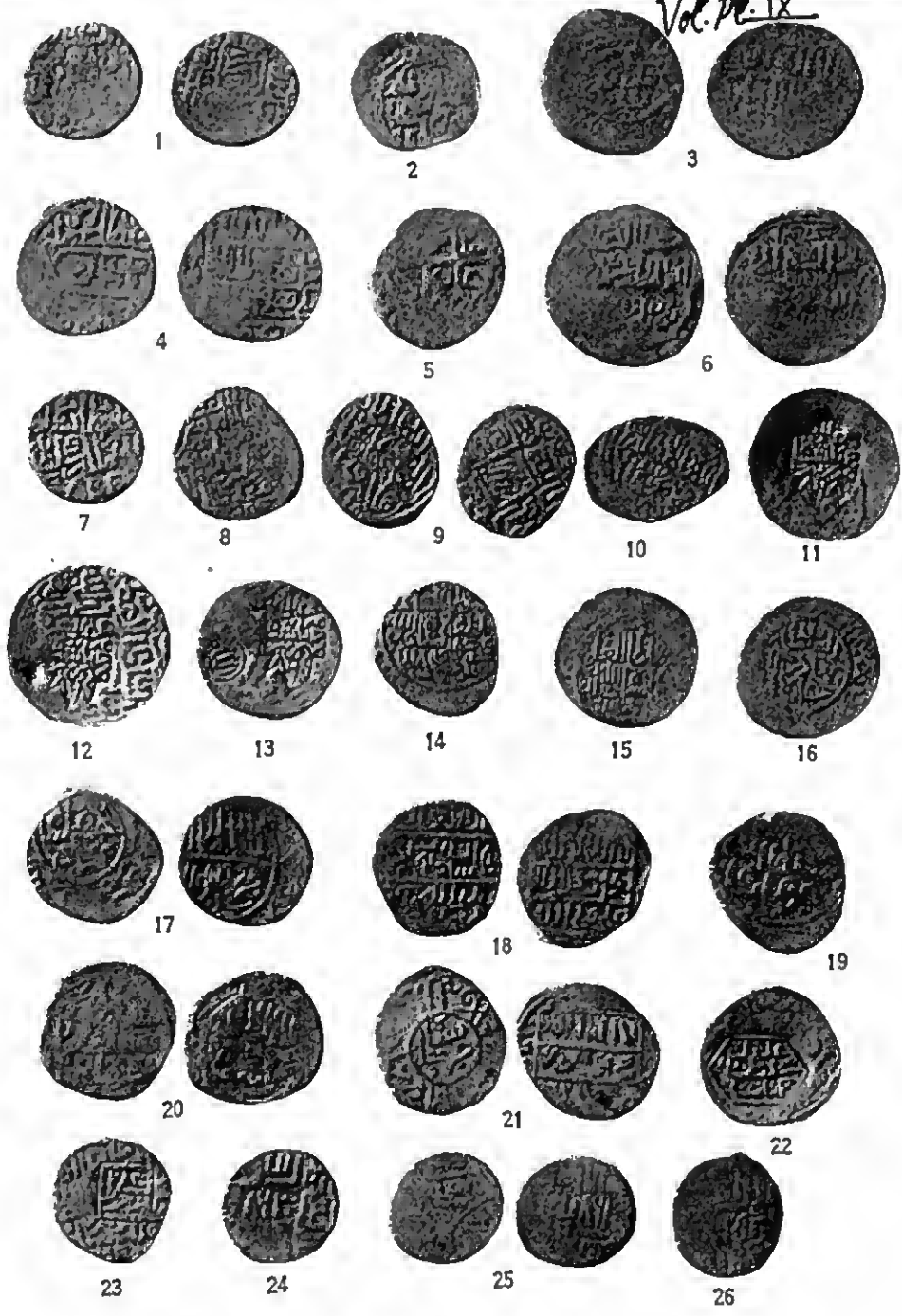


RECKONING COUNTERS AND COINS OF EDWARD I AND II





RECKONING COUNTERS OF EDWARD III AND RICHARD II



COINS OF THE KĀRĀ KOYŪNLŪ, ETC.



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Vol. XXIII



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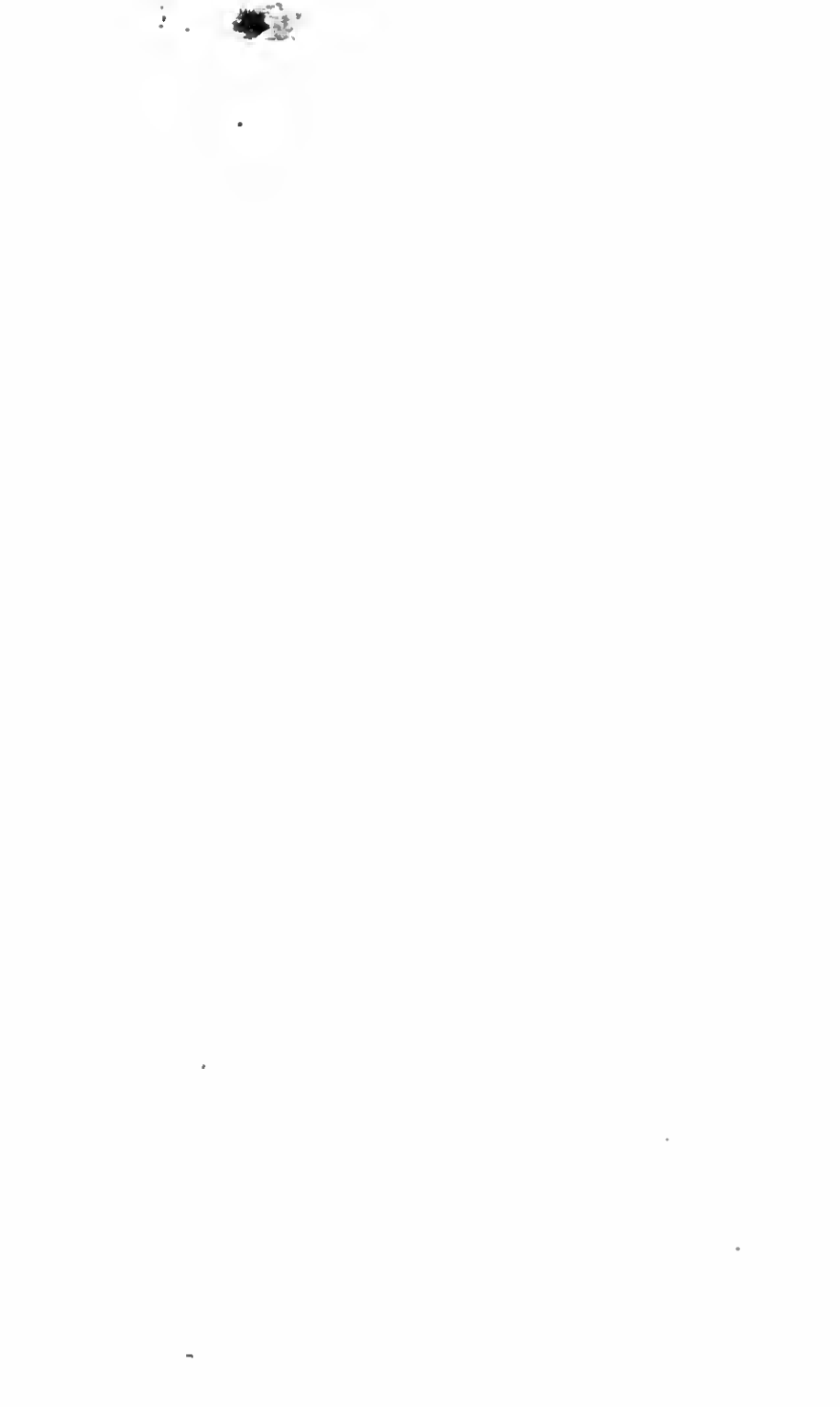


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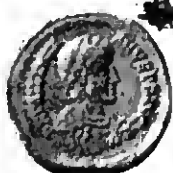
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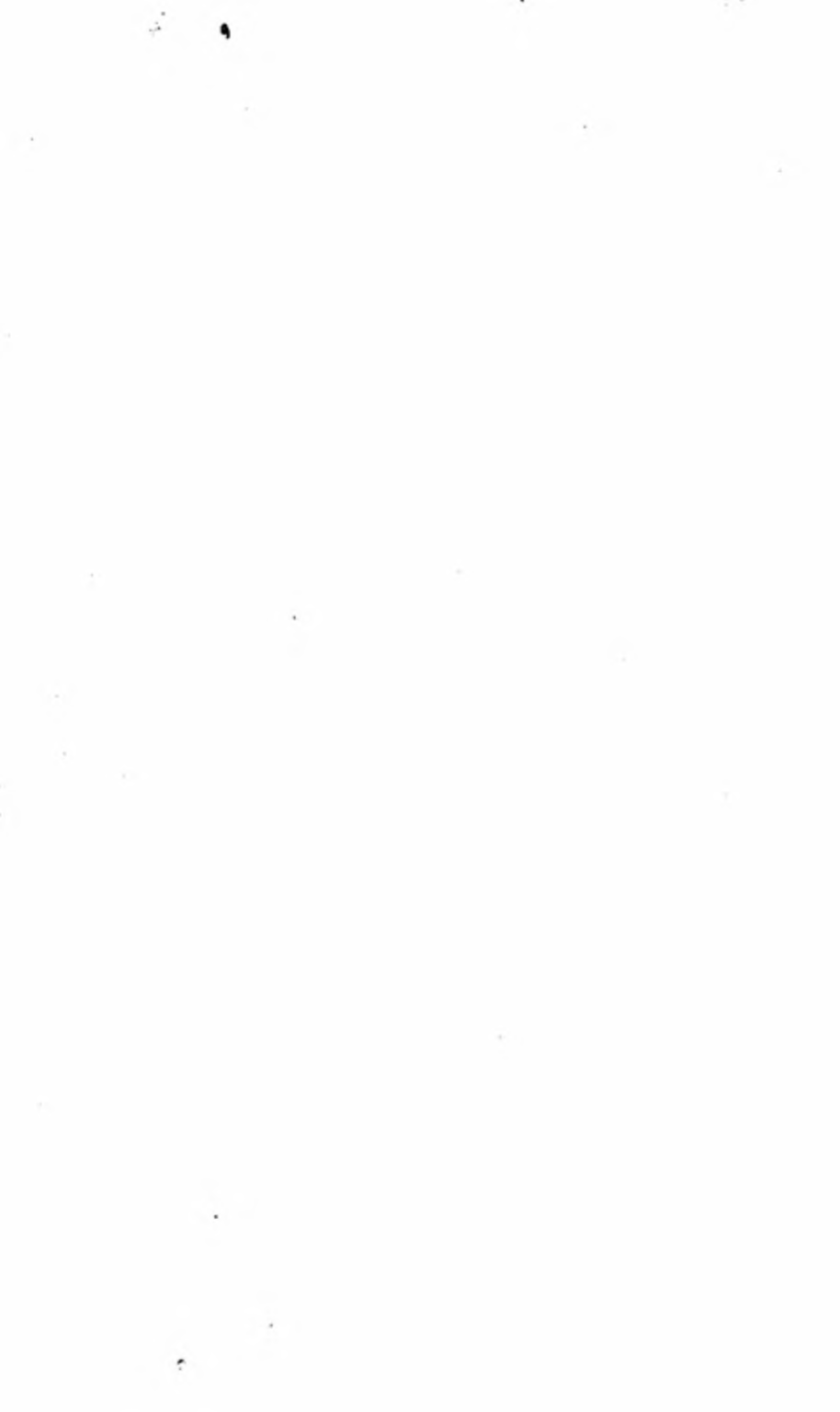


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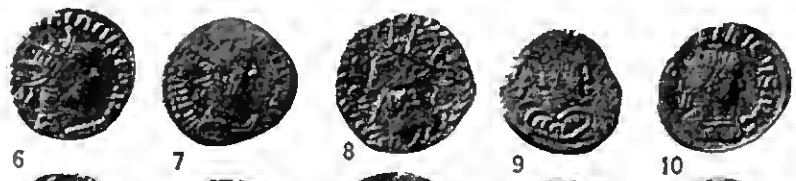
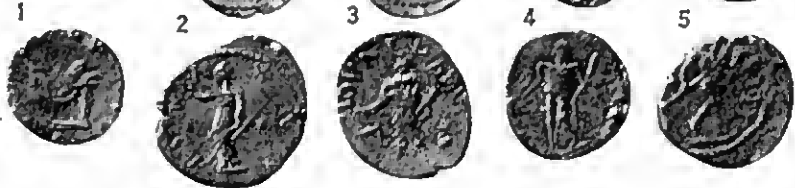
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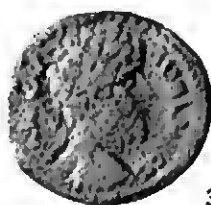


BARBAROUS ROMAN RADIAE COINS





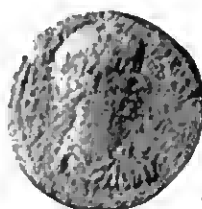
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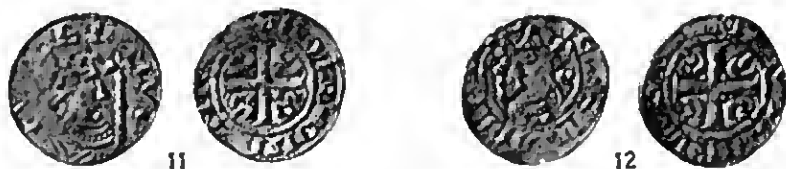




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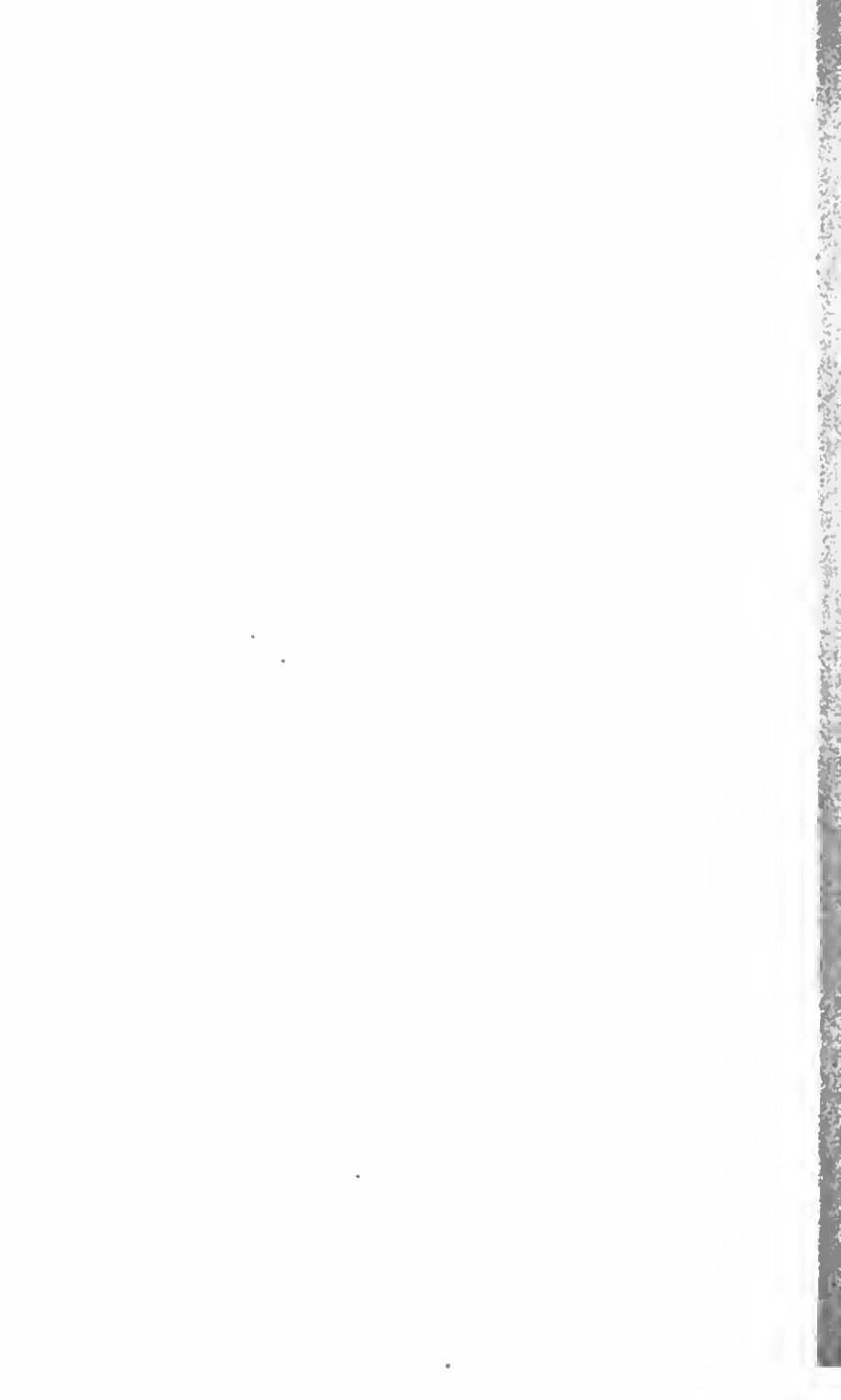


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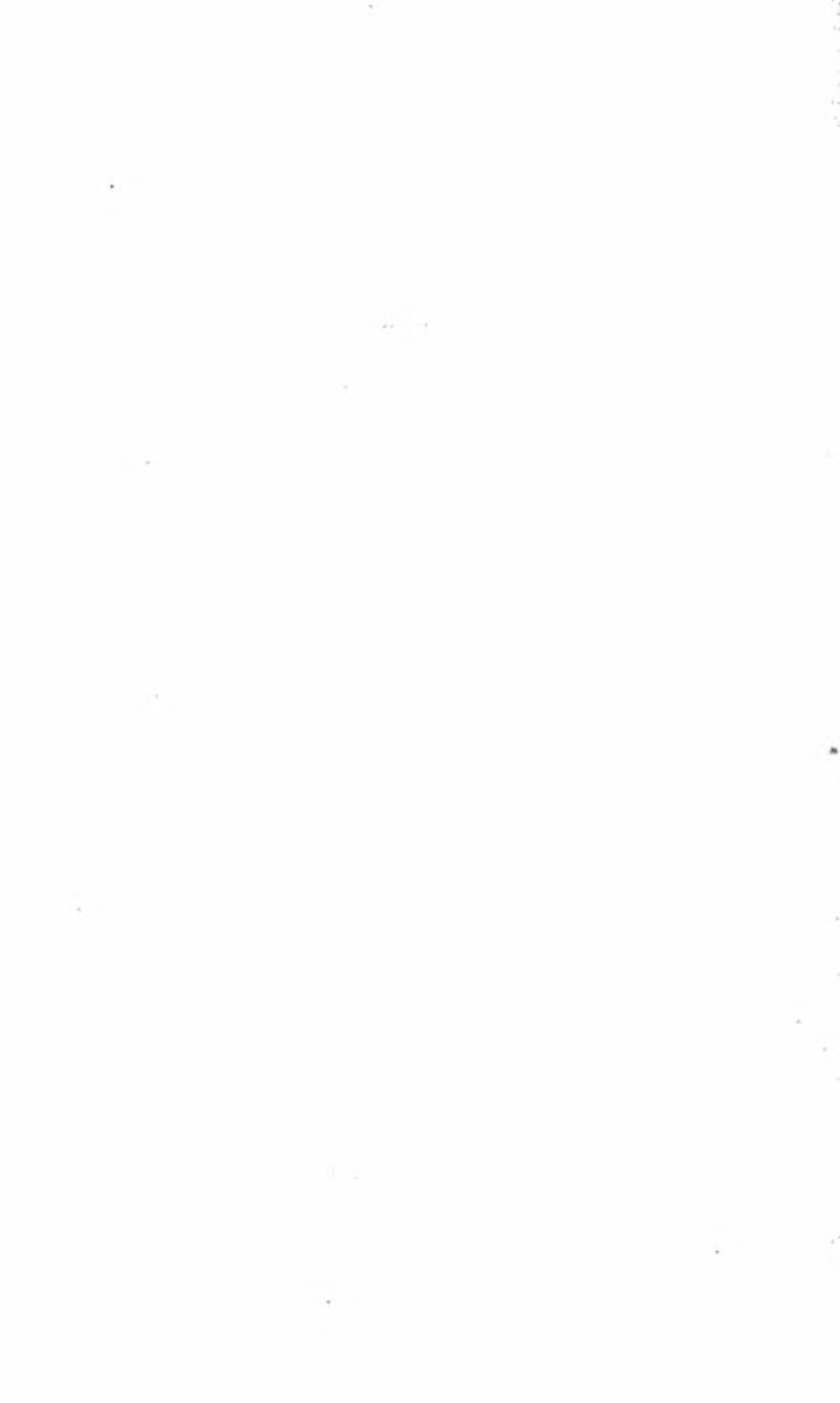


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1-12. IRISH HALFPENCE OF JOHN
13. TOUCHING CEREMONY TICKET



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OF THE
ROYAL
NUMISMATIC SOCIETY
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 1885 *WEBER, F. PARKES, Esq., M.D., F.S.A., 13 Harley Street, W. 1.
 1932 WERNSTROM, ERNEST, Esq., P.O. Box 384, San Francisco, U.S.A.
 1915 WHITEHEAD, R. B., Esq., M.A., F.A.S.B., M.R.A.S., I.C.S. (retd.), 30 Millington Road, Cambridge.
 1937 WHITTON, C. A., Esq., B.A., The High School, Newcastle, Staffs.
 1934 WILTSHIRE, R. G., Esq., Longhouse Lodge, Ermyn Way, Leatherhead.
 1938 WOOD, MISS MARGARET ENVYS, 14 Bentinck Close, North Gate, Regent's Park. N.W. 8.
 1920 WOODWARD, W. H., Esq., 48 Campden Hill Gate, W. 8.
 1903 WRIGHT, H. NELSON, Esq., I.C.S. (retd.), The Larches, West Hall Road, Upper Warlingham, Surrey.
 1936 WRIGHTSON, ANTHONY G., Esq., 11 Phillimore Terrace, W. 8.
 1933 WÜTHRICH, G., Esq., M.I.E.E., 81 Pursers Cross Road, S.W. 6.
 1922 YOANNA, A. DE, Esq., B.A., M.D., 111 Pierrepont Street, Brooklyn, New York, U.S.A.
 1932 YORKSHIRE ARCHAEOLOGICAL SOCIETY, 10 Park Place, Leeds.
 1919 ZIEGLER, PHILIP, Esq., Lilly Villa, Victoria Park, Manchester.

HONORARY FELLOWS

ELECTED

- 1898 HIS MAJESTY VICTOR EMMANUEL III, KING OF ITALY,
Palazzo Quirinale, Rome.
- 1930 ALFÖLDI, PROFESSOR ANDREAS, Ferencz Jozef Rakpart 25,
Budapest.
- 1898 BLANCHET, Monsieur ADRIEN, Membre de l'Institut, 10 Bd.
Émile Augier, Paris XVI.
- 1935 CESANO, SIGNORINA L., Museo Nazionale, Rome.
- 1926 DIEUDONNÉ, MONSIEUR A., 7 Rue Worth, Suresnes, Seine,
France.
- 1899 GABRICI, PROFESSOR DR. ETTORE, Piazza Bologna 20,
Palermo, Sicily.
- 1937 GALSTER, M. GEORG, Royal Coin Cabinet, Copenhagen.
- 1932 LAFFRANCHI, SIGNORE L., via Carlo Ravizza 19, Milan.
- 1937 LOEHR, DIREKTOR A. v., Bundessammlung von Medaillen,
Burgring 5, Vienna I.
- 1904 MAURICE, M. JULES, 15 Rue Vaneau, Paris VII.
- 1899 PICK, DR. BEHRENDT, Schwäbische Strasse 9, Berlin, W. 30.
- 1926 TOURNEUR, PROFESSOR VICTOR, Conservateur en chef de la
Bibliothèque Royale, Brussels.

MEDALLISTS

OF THE ROYAL NUMISMATIC SOCIETY

ELECTED

- 1883 CHARLES ROACH SMITH, F.S.A.
- 1884 AQUILLA SMITH, M.D., M.R.I.A.
- 1885 EDWARD THOMAS, F.R.S.
- 1886 MAJOR-GENERAL ALEXANDER CUNNINGHAM, C.S.I., C.I.E.
- 1887 JOHN EVANS, D.C.L., LL.D., F.R.S., P.S.A.
- 1888 DR. F. IMHOOF-BLUMER, Winterthur.
- 1889 PROFESSOR PERCY GARDNER, Litt.D., F.S.A.
- 1890 MONSIEUR J. P. SIX, Amsterdam.
- 1891 DR. C. LUDWIG MÜLLER, Copenhagen.
- 1892 PROFESSOR R. STUART POOLE, LL.D.
- 1893 M. W. H. WADDINGTON, Sénateur, Membre de l'Institut, Paris.
- 1894 CHARLES FRANCIS KEARY, M.A., F.S.A.
- 1895 PROFESSOR DR. THEODOR MOMMSEN, Berlin.
- 1896 FREDERIC W. MADDEN, M.R.A.S.
- 1897 DR. ALFRED VON SALLE, Berlin.
- 1898 THE REV. CANON W. GREENWELL, M.A., F.R.S., F.S.A.
- 1899 M. ERNEST BADELON, Membre de l'Institut, Paris.
- 1900 PROFESSOR STANLEY LANE-POOLE, M.A., Litt.D.
- 1901 S. E. BARON WLADIMIR VON TIESENHAUSEN, St. Petersburg.
- 1902 ARTHUR J. EVANS, Esq., M.A., F.R.S., F.S.A.
- 1903 M. GUSTAVE SCHLUMBERGER, Membre de l'Institut, Paris.
- 1904 HIS MAJESTY VICTOR EMMANUEL III, KING OF ITALY.
- 1905 SIR HERMANN WEBER, M.D.
- 1906 COMM. FRANCESCO GNECCHI, Milan.
- 1907 BARCLAY V. HEAD, D.Litt., D.C.L., Ph.D., Corr. de l'Inst.
- 1908 PROFESSOR DR. HEINRICH DRESSER, Berlin.
- 1909 HERBERT A. GRUEBER, F.S.A.
- 1910 DR. FRIEDRICH EDLER VON KENNER, Vienna.
- 1911 OLIVER CODRINGTON, M.D., M.R.A.S., F.S.A.
- 1912 GENERAL-LEUTNANT MAX VON BAHRFELDT, Hildesheim.
- 1913 GEORGE MACDONALD, Esq., M.A., LL.D.
- 1914 JEAN N. SVORONOS, Athens.
- 1915 GEORGE FRANCIS HILL, Esq., M.A.
- 1916 M. THÉODORE REINACH, Membre de l'Institut, Paris.
- 1917 L. A. LAWRENCE, Esq., F.S.A.
- 1918 Not awarded.
- 1919 M. ADRIEN BLANCHET, Membre de l'Institut, Paris.
- 1920 H. B. EARLE-FOX and J. S. SHIRLEY-FOX, Esq.
- 1921 PERCY H. WEBB.
- 1922 FREDERICK A. WALTERS, F.S.A.
- 1923 PROFESSOR J. W. KUDITSCHKE, Vienna.
- 1924 HENRY SYMONDS, F.S.A.
- 1925 EDWARD T. NEWELL, Esq., New York.

ELECTED

- 1926 R. W. MACLACHLAN, Montreal.
1927 M. A. DIEUDONNÉ, Paris.
1928 SIR CHARLES OMAN, K.B.E., M.P., D.C.L., F.B.A.
1929 MONSIEUR JULES MAURICE, Paris.
1930 REV. EDWARD A. SYDENHAM, M.A.
1931 MISS HELEN FARQUHAR.
1932 H. NELSON WRIGHT, Esq., I.C.S. (retd.).
1933 DIREKTOR PROFESSOR KURT REGLINO, Berlin.
1934 GEORGE CYRIL BROOKE (posthumously).
1935 PROFESSOR DR. BEHRENDT PICK, Gotha.
1936 JOHN ALLAN, Esq., M.A., F.S.A.
1937 PROFESSOR VICTOR TOURNEUR, Brussels.
1938 J. GRAFTON MILNE, Esq., M.A., D.Litt.



PROCEEDINGS OF THE
ROYAL NUMISMATIC SOCIETY.



PROCEEDINGS OF THE ROYAL NUMISMATIC SOCIETY.

SESSION 1937—1938.

OCTOBER 21, 1937.

ORDINARY MEETING.

Rev. EDWARD A. SYDENHAM, President, in the Chair.

The Minutes of the Ordinary Meeting of May 20 were read and approved.

Miss Anne S. Robertson, Mr. M. Comencini, M. Marcel de Mayo, and Mr. E. J. P. Raven were proposed for election as Fellows of the Society.

Mr. William Gilbert exhibited a very fine aureus of Maximinus Daza of the mint of Serdica (Cohen 143).

Mr. Mattingly gave a lecture on the Dorchester Hoard of over 22,000 antoniniani in which he gave an analysis of the hoard, and called attention to particular rarities and other features of interest. His analysis threw much light on the working of the mint in the third century and on the question of hoards in general. (A full account of the Dorchester Hoard will be published in the *Numismatic Chronicle*.)

NOVEMBER 18, 1937.

ORDINARY MEETING.

Rev. EDWARD A. SYDENHAM, President, in the Chair.

The Minutes of the last Meeting were read and approved.

Miss Anne S. Robertson, Mr. M. Comencini, M. Marcel de Mayo, and Mr. E. J. P. Raven were elected Fellows of the Society. Mr. S. V. Sohoni was proposed for election.

The evening was devoted to exhibitions, especially of objects with naval interest.

Dr. S. H. Fairbairn exhibited :

1. Medal given by Lord St. Vincent to the crew of the "Ville de Paris" for their conduct during the Mutiny at the Nore.
2. 5 whist-markers celebrating naval victories : Cape St. Vincent, 1st of June, Battle of Camperdown, Defence of Acre, and Nelson's victories.
3. Copper medal 1798, dealing with the real or supposed preparations for the invasion of England, showing FRENCH FOLLY IN BUILDING RAFTS; a large floating battery propelled by windmills.

Mr. David F. Spink showed the following coins :

1. Commodus. Large brass struck for Cyzicus, showing galley with rowers.
2. Prince Rupert. Silver badge, c. 1645.
3. General Monk, Duke of Albemarle. Silver badge, c. 1660.
4. Martin Tromp. Embossed and chased silver medal commemorating the battle of 31 July 1653 and his death in the action.
5. Martin Tromp. Struck silver medal, on the same subject.
6. Charles II. Embossed and chased silver medal on his embarkation for England at Scheveningen, 1660. English inscription.
7. Admiral M. de Ruyter. Embossed and chased silver medal, commemorating the four days' naval action between English and Dutch, 1666.
8. Admiral M. de Ruyter. Struck silver medal on the same subject.
9. James, Duke of York. Silver medal by Roettier, on the naval victory of 1665.
10. Eddystone Lighthouse. Silver badge of workmen employed in building.

Mr. L. G. P. Messenger showed coins of Septimius Severus of Corcyra and of Caracalla of Tarsus, with ship types, and medals of the centenary of the Shannon and Chesapeake action, 7 June 1813, the *Great Eastern* steamship, and the Chinese Junk *Keying*.

Mr. Owston Smith showed :

1. A scudo or piastre of Clement X (Giambattista Altieri), 1672, with the arms of his family, and a view of the harbour of Civita Vecchia showing several ships with three masts. Legend, VT ABVNDETIS MAGIS, referring probably to the Pope's desire to keep down the cost of living.

2. A scudo or tallero of Cosimo III of Etruria, 1703, showing the harbour of Leghorn with the large tower, and ships on each side of the mole.
3. A half-tallero of the same prince, 1693, showing a galley with oars and a formidable ram, and others in the distance.
4. Two types of the Reiscaler or ship-taler of August the Younger of Brunswick-Wolfenbüttel, undated, showing two ships and a man about to embark, with the legend **IACTA EST ALEA**. One has the mint-mark of Heinrich Schluter (cross keys). These come in order after the well-known series of hell talers, and were probably struck about 1643.
5. A Dutch gulden of 1802, struck for the Indies, showing the three-masted ship.
6. A Chinese dollar of the type of about four years ago showing a junk.

Mr. C. J. Bunn exhibited the following coins:—

1. Heraclius, Heraclius Constantine, and Heraclonas. Solidus, A.D. 629-680. *B.M.C.* 46-9. One of a small series distinguishable by the cross being separated from the crown on the figure of Heraclonas.
2. Constant II (Constantine II), A.D. 641-668. Semissis. Carthage, *B.M.C.* 294.
3. Constantius Gallus, A.D. 350-354. Solidus of Antioch. *Rev.* Victoria type.
4. Constantius II, A.D. 337-361. Solidus of Nicomedia. **VOT XX MVLT XXX.**
5. Theodosius II, A.D. 408-450. Solidus of Constantinople. Concordia to right.
6. Alexius Comnenus, A.D. 1081-1118. Scyphate nomisma: jewellery in king's robe, struck in high relief.
7. Hostilianus, A.D. 249-251. Sestertius. *Obv.* **C. VALENS. HOSTIL MES QVINTVS N. C.**
Rev. **PRINCIPI IVVENTVTIS.**

Mr. R. B. Whitehead exhibited:—

1. Graeco-Bactrian tetradrachm of Heliokles: usual type and monogram but fine broad specimen.
2. Indo-Bactrian tetradrachm of Archebios, helmeted bust (smooth helmet); very fine and rare.
3. Do. of Strato, diademed bust of king to left, posing javelin, as no. 29 in his paper "Notes on Indo-Greek Numismatics", *Num. Chron.*, 1923.

4. Square copper piece of the Indo-Bactrian rulers Agathokleia and Strato. A genuine specimen of this very rare and interesting issue, condition better than any other known to him.
5. Tetradrachm of Indo-Scythian Azilises, very rare type showing god and goddess standing side by side. The former holds in outstretched right hand a small half-hoof-shaped object, so far unelucidated.

DECEMBER 18, 1937.

ORDINARY MEETING.

REV. EDWARD A. SYDENHAM, President, in the Chair.

The Minutes of the last Meeting were read and approved.

Mr. Shridhar Vasudev Sohoni was elected a Fellow of the Society.

It was announced that the Council had decided that until further notice members of the British Numismatic Society should be admitted as guests to the ordinary meetings of the Society.

Mr. William Gilbert showed a pattern two guinea piece of George II, 1733.

Dr. Fairbairn showed a French sou altered to bear the name and portrait of General Boulanger, and a base metal medal of 1857, with unidentified head and legend *Diable me protège*.

Mr. E. J. P. Raven read a paper on a recent hoard from Hierapytna in Crete. It contained about 150 Greek silver coins and 200 Roman republican denarii, and appears to have been buried about 44-42 B.C. Among the Greek coins, apart from those of Cretan cities, were cistophori, tetradrachms of Athens, and local imitations of the latter. The good condition of these imitations confirms other evidence that they were issued after 100 B.C., perhaps during the visit of Lucullus in 87 B.C. Most of the other Cretan coins appear to be of the same period, and the activity of these mints may perhaps be explained by their connexion with the Cilician pirates.

JANUARY 20, 1938.

ORDINARY MEETING.

REV. EDWARD A. SYNENHAM, President, in the Chair.

The Minutes of the last Meeting were read and approved.

Dr. Fritz Ephraim was proposed for election as a Fellow of the Society.

Mr. L. A. Lawrence showed three forgeries of denarii of Pescennius Niger.

Mr. D. D. Mitchell exhibited two fine multiple talers of Hanover.

Mr. W. Owston Smith exhibited a series of coins of the Counts of Schlick to illustrate his paper, in which he described the arms of the Counts of Schlick and Bassano. His theory was that the triangle and annulets were the original family arms, while the tower and lions represent Bassano. This is contrary to the account given in most authorities, but he was able to find support for his view in discussing the coins and medals exhibited, and in the present arms of the city of Bassano, a copy of which he produced.

FEBRUARY 17, 1938.

ORDINARY MEETING.

HAROLD MATTINGLY, Esq., Vice-President, in the Chair.

The Minutes of the last Meeting were read and approved.

Dr. Fritz Ephraim was elected a Fellow of the Society.

Mr. William Gilbert showed an extra fine aureus of Vespasian, *rev.* Aequitas (M. & S., no. 5, not in Cohen), wt. 109.5, and an aureus of Domitian as Caesar struck in A.D. 74 (Cohen 374, M. & S. 233), wt. 111.0. *Rev.* Spes.

Mr. Derek Allen gave an account of the collection of warrants and sketch-books of Thomas Simon in the possession of Mr. R. R. Barker, a descendant. The drawings threw

much new and interesting light on Simon's work and methods. (An account of these documents will be published in the *Numismatic Chronicle*.)

MARCH 17, 1938.

ORDINARY MEETING.

Rev. EDWARD A. SYDENHAM, President, in the Chair.

The Minutes of the last Meeting were read and approved.

Mr. Gilbert Askew was proposed for election as a Fellow of the Society.

The evening was devoted to the exhibition of pieces of religious interest.

Mr. W. Gilbert exhibited:

1. A solidus of Justinian II (685-695), wt. 68.5 gr. *B.M.C.*, p. 331-12. The first appearance of I.H.S. on a coin.
2. A solidus of Basil I (867-886), wt. 68 gr. *B.M.C.*, p. 436-2. First coin to show the Saviour enthroned.

Mr. W. Owston Smith exhibited the following coins:

1. City of Magdeburg. Taler, 1617. Centenary of the Reformation, half-length figures of Luther and Huss. CENT. ANN. REV. DEO: ET. MIHI. [6882 Rm. 1932 Vog.]
2. City of Heilbronn. Medal, 1717. Bicentenary. V(erbum) D(omini) M(anet) I(n) Æ(ternum). Mem. Iub. II. [Heilbr. 7014 Cat. S. R.]
3. Hessen-Darmstadt. Ernst Ludwig, 1717. HASSIA VOTO- RVM COMPOS DEO: GRATA: V.D.M.I.Æ B.I. (Bethmann Darmstadt).
4. Saxe-Weimar. Wm. Ernest. SIE DAEMPFEN NICHT DES WORTES LICHT (Candle) IN MEMORI/AM IVBILAEI/SECVNDI (4560 Rm.).
5. Saxe-Gotha-Altenburg. Frederick II. NON DORMIT CVSTOS. The Eye of God over vineyard.
6. (New Gotha) Saalfeld-Coburg. John Ernst (4th son of Ernst der Fromme), 1680-1729, in Saalfeld, 1699-1729, also Coburg, 1717. Half-length with wig without cloak; bust of Luther.

Mr. Whitehead showed a copper piece of Akbar, a *shasham hissa* (1/6 tanka) of the Ilahi year, 45 Shahrewar.

Mr. L. G. P. Messenger exhibited a seventeenth-century silver counter, *obv.* Annunciation, *rev.* Birth of Christ (cf. Miss Farquhar in *Num. Chron.*, 1916, Pl. V. 6).

Mr. M. Comencini showed a Hamburg taler of 1780, on the bicentenary of the Augsburg Confession, Austrian and Hungarian coins with the Virgin as type, and a rouble of Czar Paul I, 1795, with *rev.* a cross.

The President showed some coins to illustrate the religion of Constantine the Great and read the following note:—

All collectors know the satisfaction derived from the possession of fine and rare coins. Yet it is almost always from the commoner ones that we learn most about the ideas of ancient times. Hence my excuse for exhibiting to the Society some of quite the commonest examples of the Roman series, because they throw an interesting side-light on the religion of Constantine the Great.

The character of Constantine is one of the many human puzzles. His inconsistencies have called forth some of the bitterest censure; on the other hand, he has his full share of admirers who eulogize him as the first Christian Emperor, the champion and saviour of the Christian Church against paganism, and so forth. In this connexion it may be worth while to point out that, although the name of Helena ranks among the saints of the Calendar, Holy Church has never thought fit to canonize her son.

The critical moment in the career of Constantine was immediately before his encounter with Maxentius, when, so the legend goes, he saw the vision of the Labarum and received the divine assurance "In hoc signo vinces". On the strength of this he declared himself a Christian and risked a battle against desperate odds. Hence his victory at Pons Milvius on Oct. 27, A.D. 312, is ascribed to the direct agency of the Christian God.

It was shortly after the death of Maxentius that these well-known *Soli Invicto Comiti* coins were issued by Constantine, Licinius, and Daza. This is, therefore, the first great coinage of Constantine as emperor of the West. Now if Constantine attached any importance to the "Labarum" vision (assuming the legend to be true), and if he definitely declared himself a Christian, we might expect to find some allusion to Christianity,

either by type or symbol, on the coinage issued directly after the victory. What we actually find is a type and legend, definitely religious, but definitely non-Christian. "Sol invictus" is the personification of numerous oriental cults, but more particularly of Mithraism. Anrelian had already used the title in this connexion. So that this extensive coinage may be regarded as Constantine's broadcast to the Roman world that he ascribed his victory, and the position that the victory had given him, to his alliance with the Unconquered Sun.

His choice of the *Soli Invicto Comiti* type may, of course, have been politic. However much he sympathized with Christianity, it would have been ill-advised to advertise a discredited religion on the coinage, whereas Mithraism was immensely popular. It seems clear, however, that in the year 312, Constantine may have been a devotee of Mithra, or his opinions may have hovered between the claims of Mithra and Christ. But a convinced member of the Catholic Church he certainly was not; otherwise he would scarcely have deferred his baptism till almost the end of his life. Indirectly, however, his policy proved a gain to the Church, since Christianity received honourable recognition by the Edict of Milan and the Mithraic coin-type averted suspicion.

APRIL 21, 1938.

ORDINARY MEETING.

HAROLD MATTINGLY, Esq., Vice-President, in the Chair.

The Minutes of the last Meeting were read and approved.

Mr. Gilbert Askew was elected a Fellow of the Society.

Mr. R. B. Whitehead exhibited a series of Muslim amulets, part of a set of 12 with names of the 12 imams.

Mr. W. Gilbert read a paper on "Talismans", in which he gave a sketch of their symbolism, history, and virtues. He showed a number of typical examples and explained their symbolism and astrological significance. He explained that their virtue lay not so much in the form and material of the talisman as in the will of the user.

Mr. Mattingly and Mr. W. L. Hildburgh also spoke.

(This paper will be published in the *Numismatic Chronicle*.)

MAY 19, 1938.

ORDINARY MEETING.

Rev. EDWARD A. SYDENHAM, President, in the Chair.

The Minutes of the last Meeting were read and approved.

Messrs. L. G. P. Messenger and John Walker were appointed to audit the Society's accounts.

Mr. W. Gilbert exhibited a fine aureus of Domitian, *rev.* Minerva (Cohen 608).

Mr. A. H. Baldwin exhibited four ancient forgeries of: Lucania, Velia, 400 B.C. Attica, Athens, 338-329 B.C. Cilicia, Tarsus, 361-333 B.C. Campania, Neapolis, 300-241 B.C.

Mr. Gilbert Askew showed an uncertain token on which he sought information:

Obv. Tiger or cat (?), on shield with coronet above.

Rev. NON OBLIVISCAR 1834.

Mr. Lawrence and Mr. Sydenham showed plated Roman denarii illustrating their paper.

Mr. Lawrence gave an account of a hoard of plated Roman denarii found in St. Swithin's Lane in 1856. The remarkable feature was the number of groups of coins from the same dies. Mr. Lawrence, in discussing the general question, said that he had forgeries of coins by 164 out of 168 Republican moneyers, and concluded that most of the forgeries were official.

Mr. Sydenham reviewed the literary and other evidence regarding contemporary forgeries in ancient Rome, called attention to the evidence of a Roman practice of examining coins for forgeries, and held that the evidence did not justify the belief in a regular official issue of plated coins.

JUNE 16, 1938.

ANNUAL GENERAL MEETING.

Rev. EDWARD A. SYDENHAM, President, in the Chair.

The Minutes of the Annual General Meeting of June 17, 1937, were read and approved.

Messrs. Gilbert Askew and John Walker were appointed scrutineers of the ballot.

The following report of the Council was laid before the Meeting.

The Council have again the honour to lay before you the Annual Report on the state of the Royal Numismatic Society.

They regret to announce the deaths of the following four Fellows:

Percy Gardner	Howland Wood
Henry Garside	A. M. Tracey Woodward

They have also to report the resignations of the following four Fellows:

Dr. G. H. Abbott	Oliver H. Myers, Esq.
L. H. Middleton, Esq.	Ivo Pakenham, Esq.

On the other hand they have to announce the election of the following seven ordinary Fellows:

Gilbert Askew, Esq.	M. Marcel de Mayo
M. Comencini, Esq.	Miss Anne S. Robertson
Dr. Fritz Ephraim	E. J. P. Raven, Esq.
S. V. Sohoni, Esq.	

The state of the Society compared with the corresponding period last year is therefore:

	Ordinary.	Honorary.	Total.
June, 1937	214	12	226
Since elected	7	—	7
	<hr/> 221	<hr/> 12	<hr/> 233
Deceased	4	—	4
Resigned	4	—	4
	<hr/> 218	<hr/> 12	<hr/> 225

The Council have also to report that they have awarded the Society's medal to Dr. J. Grafton Milne, Reader in Numismatics in the University of Oxford, and Deputy Keeper of Coins in the Ashmolean Museum, in recognition of his services to the study of ancient numismatics.

The Treasurer's Report which appears on pp. 14-15 was laid before the meeting.

The Reports of the Secretary and Treasurer were adopted on the motion of the President.

In the unavoidable absence of Dr. Milne, the President handed the Society's Medal to Mr. Allan and said:—

It is my pleasant duty to present the Society's Medal, which this year has been voted by the Council to Dr. J. Grafton Milne, in recognition of his valuable work as a numismatist and of all that he has done for the advancement of the study of numismatics. As unfortunately he is unable to be present with us this evening, the Secretary has kindly undertaken to forward the Medal to him, together with these humble expressions of appreciation.

Dr. Milne was elected a Fellow as far back as 1897, a year otherwise famous as that of the Diamond Jubilee of Queen Victoria. He is well known as one of our leading authorities on Greek coins and the author of numerous works on the subject. The following are but a few:—*The Autonomous Coinage of Smyrna* (*Num. Chron.*, 1923, 1927, 1928), *Catalogue of Alexandrian Coins in the Ashmolean Museum*, *Coins from Asia Minor*, *Alexandrian Coins and the Alexandrian Mint under Diocletian*, and *Early Coinages of Sicily*. The last appears in the *Chronicle* for the present year. Of an entirely different character I may mention a work on Oxfordshire Tokens, published 1935.

It is, however, of his work in Oxford, more particularly in connexion with the Coin Department of the Ashmolean Museum, that I should like to say something personally. I remember, in the old days, trying to study coins in an obscure chamber in the Bodleian, euphemistically called in the *University Statutes* "Museolum numismatum". These

STATEMENT OF RECEIPTS AND DISBURSE.

YEAR ENDED

Dr.

THE SOCIETY IN ACCOUNT WITH

	£	s.	d.	£	s.	d.
To Cost of Numismatic Chronicles (two numbers)	204	5	0			
„ Rent	41	4	2			
„ Printing, Postages, and Stationery	18	14	5			
„ Lantern Expenses	10	1	8			
„ Bookbinding	3	10	0			
„ Insurance	3	15	0			
„ Refreshments	3	12	10			
„ Sundries	2	11	0			
				288	3	1
„ Legal Charges	30	11	0			
„ Furniture and Equipment	23	0	6			
„ Removal Expenses	12	5	0			
„ Alterations and Repairs	4	16	3			
				70	12	9
„ Balance at Bank 31.5.88 carried forward—						
General Account	518	14	7			
Research Account	7	0	0			
P. H. Webb Bequest	10	0	0			
				535	14	7
				2894	10	5

MENTS OF THE ROYAL NUMISMATIC SOCIETY

31st May, 1938.

G. C. HAINES, HON. TREASURER.

Cr.

	£	s.	d.	£	s.	d.
<i>By Balance at Bank 31.5.87 brought forward—</i>						
General Account	388	15	5			
Research Account	6	0	0			
				394	15	5
„ Entrance Fees	7	7	0			
„ Subscriptions	305	7	0			
				312	14	0
„ Sales of Numismatic Chronicles (25.2.37—30.6.37 inclusive) .	62	6	3			
„ Income Tax Recovered Two Years ended 5.4.38	26	5	3			
„ Sale of Library Books	25	0	0			
„ Contributions towards Plates	20	0	0			
„ P. H. Webb Bequest	10	0	0			
„ Hire of Slides	1	16	0			
„ Sale of Medals	1	3	6			
„ Dividends and Interest—						
£200 5% Conversion Stock 1944-64 (N.B. Market Price @ 113½, £226 10s. 0d.)	10	0	0			
£1,100 London, Midland and Scottish Railway, 4% Preference Stock (N.B. Market Price @ 64½, £709 10s. 0d.)	44	0	0			
	54	0	0			
Less Income Tax deducted	13	10	0			
				40	10	0
				£894	10	5

G. C. HAINES, Hon. Treasurer.

Audited and found correct,

LEOPOLD G. P. MESSENGER,

JOHN WALKER,

Hon. Auditors.

June 15, 1938.

were not the "good old days", to which some of us look back with sighs of regret. So far as Oxford numismatics are concerned, they were *bad* old days. One studied there in the maximum of discomfort, amid a superabundance of dust. True, the coins were there; but so arranged—or disarranged—as to make access to many of them impossible. However, there is no need to dwell on the seamy past, since all is now happily changed. The University of Oxford has awaked to the fact that coins are not merely treasures to be hoarded, but important material to be studied. The collections have been transferred from the Bodleian Library to the Ashmolean, where they may be studied with every facility. The coins are arranged scientifically in suitable cabinets and are systematically catalogued. So that to-day the Coin Room of the Ashmolean ranks high in excellence and is a worthy second to that of the British Museum. This splendid result, which confers so many advantages on students of numismatics, has been achieved very largely through Dr. Milne's untiring energy and devotion. And I feel, as I am sure you feel, that we cannot express our appreciation of Dr. Milne and his work more aptly than in the graceful phrase of the Society's Medal "*optime merenti*".

Mr. Allan read the following letter in reply from Dr. Milne:

23 BELSYRE COURT,
OXFORD.

24. 5. 38.

My dear Allan,

Many thanks for your letter conveying the announcement that the Council of the Royal Numismatic Society has decided to award their medal to me this year. As a previous engagement will prevent my attending the meeting on June 16, I must ask you to convey to the Society my sense of the honour conferred upon me in adding my name to such a distinguished list. As this coincides with the termination under the age-limit of my official position as representative of our Science in the

University of Oxford, I may perhaps be allowed to assume that the compliment is directed not only to me but to the University, as the first English University to recognize the position of Numismatics as an integral part of the study of Ancient History: and this is ultimately due to the persistent advocacy of the founder of the modern Oxford School of Classical Archaeology, Professor Percy Gardner. It is half a century since I became a pupil of his, and he told me then, and continued to tell me till just before his death less than a year ago, that Numismatics provided the best training for the archaeologist and so for the historian: and it has been a constant gratification to me during the twelve years that I have been back in Oxford to see how his teaching has borne fruit. Anything that I have done has been designed to carry on his work, and I hope to hand the torch on to my successor still burning.

Yours sincerely,
J. G. MILNE.

The President then delivered the following address:—

It is, I feel, a matter of no small satisfaction to all of us that, after almost a year of temporary lodging, our Society has at length come to its moorings, and that at the close of the present Session we meet in rooms that we can call our own.

When it became necessary for us to quit the rooms in Russell Square that we had occupied for many years, the question was, "Where shall we go?" Fortunately at this juncture the Royal Anthropological Society came to our aid and put at our disposal their rooms in 51 Upper Bedford Place, where we held our meetings for the first part of the present Session. I should like to take this opportunity of expressing our thanks and indebtedness to the Royal Anthropological Society.

Our move to 21 Bedford Square may, in more senses than one, be described as a move in the right direction. In the first place, it brings the two Numismatic Societies, the

Royal and the British, under one roof. When we consider the interdependence of various branches of numismatics, it is evident that the mutual interests of these two great Societies will best be served by friendly co-operation. And by the establishment of a closer relationship, we may be certain that advantages will accrue not only to the members of the two Societies but to the Science of Numismatics generally.

Secondly, our new quarters are conveniently situated and in all respects appear eminently suited to our requirements. Incidentally, it may be mentioned that the chairs are a good deal more comfortable than those in our late premises. It has even been hinted that they have a tendency to be soporific! If this is the case, we can only trust that any untoward effect of this kind may be more than counteracted by the stimulating character of our subjects and speakers.

A move is rarely unattended by certain difficulties; and our present move is no exception. In this part of London suitable premises at a reasonable rental are by no means easy to find; and the task of finding them devolved mainly on our Secretary and Mr. Mattingly. Then, certain legal formalities, the assessment, or rather the avoidance, of rates and so forth, required skilful handling; and for this our thanks are due to Mr. Haines. Lastly, and by no means the least difficult, was the housing of our library. It was soon discovered that the available space here is insufficient to accommodate all the books accumulated by the Society during the past century. Hence it became necessary to reduce the bulk of our library by disposing of duplicate copies and works for which there is practically no demand. Books of purely archaeological interest have been loaned indefinitely to the Institute of Archaeology in Regent's Park. This work of "weeding out" and ultimately rearranging our books has been no light one, and we are greatly indebted to Mr. W. Owston Smith for the time and trouble he has expended on it.

Passing to the more personal side of our Society, we regret to record the deaths of four Fellows in the course of

the past year:—Dr. Percy Gardner, Mr. Henry Garside, Mr. Howland Wood, and Mr. A. M. Tracey Woodward.

By the death of Percy Gardner on July 17, 1937, our Society loses its oldest Fellow and the University of Oxford loses a revered Emeritus Professor, a distinguished scholar and writer, and an impressive personality. Dr. Gardner was elected a Fellow of the Royal Numismatic Society in 1871, and in the same year joined the Staff of the British Museum. During the fifteen years of his connexion with the Museum he took a prominent part in the publication of the B.M. Catalogue of Greek Coins. The four volumes which he wrote are *The Coins of Thrace* (1877), *The Seleucid Kings of Syria* (1879), *Thessaly and Aetolia* (1883), and *The Peloponnesus* (1887). In 1880 he was elected to the Disney Professorship of Archaeology at Cambridge, and in 1889 he was awarded the Medal of the Royal Numismatic Society.

He was ever a prolific writer, and to enumerate all his works would far exceed the limits of this notice. Of his publications on Greek Coins I would mention his monograph on *Samos and Samian Coins* (1882), *Types of Greek Coins* (1883), and *History of Ancient Coinage* (1918).

Although his studies were mainly devoted to Greek Coins and Greek Archaeology, he occasionally extended them to a wider field, as, for example, in his works on *The Parthian Coinage* (1887), *Early Oriental Coins* (1885), *The Coins of India* (1885), and *Coins of Bactria and India* (1887).

From 1880 to 1896 he edited the *Journal of Hellenic Studies*, in which appear many of his articles on Greek Art and Archaeology. For some time past Dr. Gardner's failing health had debarred him from taking an active part in numismatic work. But though forced to stand aside, in his work he lives; and we may concede to him the right to boast in the words of Horace, "Exegi monumentum aere perennius".

Mr. Henry Garside, whose death occurred at Teddington on December 11, 1937, had been a Fellow for close on half a century (having been elected in 1889), and during that time he was rarely absent from any Meetings of the Society.

Hence he was one of our best-known members and, it may be added, his genial and courteous disposition made him one of the most loved. His numismatic interests were confined to British and present-day currencies, and in this particular line he was indefatigable in discovering and recording with meticulous detail every new issue as it appeared in each country, no matter how remote. On "Exhibition Evenings" he always had something to show. His published work comprised numerous articles, under the titles "The British Imperial Coinage" and "British Colonial Coins", which appeared over a number of years in Spink's *Numismatic Circular*, his *British Imperial Copper and Bronze Coinage, 1839-1920*, appearing in a separate volume in 1920.

Mr. Howland Wood, who died, after a short illness, on January 4 of this year, was Curator of the American Numismatic Society, New York. He graduated from Brown University in 1900 and was elected a Fellow of the Royal Numismatic Society in 1906. He was Secretary of the American Numismatic Association from 1905 to 1909, and Chairman of the Board of Governors from 1909 to 1912. Mr. Wood was also a Fellow of the American Numismatic Society, an honorary member of the Yokohama Numismatic Society, a member of the American Oriental Society, the Philadelphia Numismatic and Antiquarian Society, and the New York Numismatic Club.

He was appointed to the Curatorship of the American Numismatic Society in 1913, and for the last twenty-five years devoted his energies to the enlargement of the coin collection, which is now the largest in the United States. He was well known as a keen and erudite numismatist. His interests lay specially in American and Oriental Coins, in connexion with which he published numerous works; e.g., "Gold Dollars of 1858" (*Numismatic Notes and Monographs*, no. 12, 1922), "Commemorative Coinage of the United States" (*ib.*, no. 16, 1922), "Coinage of Tegucigalpa" (*ib.*, no. 18, 1923), "The Coinage of the Mexican Revolutionists" (*ib.*, no. 38, 1928), "The Gampola Lirin Hoard" (*ib.*, no. 61, 1934). Of special interest is his *Coinage of the West Indies*

(1913) dealing with the counter-marked Spanish coins circulating there. Two articles entitled "Additional Notes on the Grant Half-Dollar" and "New Issues of Coins" appeared in the *Coin Collector's Journal* only a month before his death; and his *Coins of the World (XXth Century)* has now appeared, edited by Messrs. Mosher and Raymond.

Mr. A. M. Tracey Woodward was elected a Fellow in 1920. He spent a considerable part of his life in China, where he developed an interest in Chinese Coins. His published works on the subject include "The Modern Ten Cash Piece of China" and other articles on Chinese coins. During the last years of his life he retired to France; and if the title of his residence, "Château Millefleurs", gives a clue as to his tastes outside the range of Numismatics, we may conclude that he was a lover of the picturesque.

The following four Fellows have resigned:—Dr. G. H. Abbott, Mr. L. H. Middleton, Mr. Oliver H. Myers, and Mr. Ivo Pakenham.

On the other hand, we are glad to welcome the following seven new Fellows:—Mr. Gilbert Askew, Mr. M. Commenchini, Dr. Fritz Ephraim, M. Marcel de Mayo, Miss Anne S. Robertson, Mr. E. J. P. Raven, Mr. S. V. Sohoni.

During the present Session the work of the Society has gone on with unabated vigour. The papers read at the monthly meetings cover a fairly wide field and most of them have been followed by interesting discussions. No less than three out of the six papers deal with the subject of Finds. Rather a large proportion, perhaps; but the importance of this aspect of Numismatics is undeniable. Happily the time is past when finds of coins were treated merely as so much loot and we now see in them one of our most fruitful sources of knowledge. We are, therefore, indebted to those who have read papers on the subject, since their aim is to reveal and estimate this freshly acquired knowledge.

Mr. Mattingly's paper on the "Dorchester Hoard" (October 21) describes one of the largest and most important finds of Roman coins ever made in this country. This hoard, discovered in the town of Dorchester on May 11,

1937, comprised over 22,000 coins, all of which (with the exception of 16 denarii) are antoniniani ranging from the time of Caracalla to Salonina. Gordian III is represented by no less than 8,890 specimens, and among the rarities are coins of Tranquillina and Cornelia Supera. With very few exceptions the coins after cleaning were shown to be in the finest condition. Some of the more important were illustrated by slides as well as photographs of the hoard at the time of discovery, showing the large mass of coins caked together and also the bronze jug and bowl in which many of the coins were deposited. Mr. Mattingly offered the explanation that the hoard might be the cash-in-hand of a local bank rather than the contents of a military chest. The coins are mainly of Roman mintage, but Milan, Viminacium, and several eastern mints are also represented. Perhaps the most important feature is the light which this hoard throws on the organization of the Roman mint in the third century A.D. Six *officinae* appear to have worked continuously, the normal arrangement being that each *officina* issued its own particular set of types. Unmistakable facial resemblances to Balbinus and Pupienus can be traced in the early issues of Gordian III. Evidence for the date of the "Consecratio" issue with portraits of earlier emperors (which Mr. Mattingly assigns to Milan) is shown by the fact that the average weight of the series falls almost midway between the average weights of antoniniani of Trajan Decius and Trebonianus Gallus.

"A Hoard of Greek and Roman Coins recently found at Hierapytna (Gierapetra) in Crete" is the subject of a paper by Mr. E. J. P. Raven (December 16). This hoard, although of less spectacular dimensions than the Dorchester hoard, nevertheless presents features of unusual interest. It contained 51 silver coins of Crete, 50 tetradrachms of late Athenian style with magistrates' names, about 60 cistophori and 200 Roman denarii, ranging from about 140 to 46 B.C. The hoard throws light on the dating and interpretation of the series of late Cretan tetradrachms. The condition of these coins corresponds with that of denarii of c. 90-70 B.C.,

and similar evidence of date is seen by comparing them with the New Style Athenian tetradrachms. It was between 100 and 67 B.C. that the Cilician pirates were most active, and it is known that certain Crotan cities took a share in their exploits. Mr. Raven suggests that these cities were most probably Cnossus, Cydonia, and Hierapytna, whose coins figure most prominently in the hoard. With regard to the series on the Athenian model Mr. Raven proposes a date considerably later than that maintained by Head and Macdonald. These coins have hitherto been supposed to belong to about 200 B.C., and Svoronos seems to be the only numismatist who has assigned them to some time in the first century B.C. Mr. Raven's reasons for fixing their issue soon after 87 B.C. in connexion with the Roman occupation of Crete under the quaestor Lucullus are strongly supported by the evidence of the hoard. As a scholarly readjustment of the chronology of the Cretan coinage the whole paper is of unquestionable value.

In his paper on "The Counts of Schlick and their Coinage" (January 20) Mr. W. Owston Smith outlined the history of various members of this not over-conspicuous Bohemian House and explained their connexion with Bassano in Italy. He described the arms of the Counts of Schlick and of Bassano, his theory being that the triangle and annulets were the original family arms, while the tower and lions represent the town of Bassano. This is contrary to the account given in most authorities, but he was able to find support for his view in discussing the coins and medals exhibited, and in the present arms of the city of Bassano, a copy of which he produced.

Mr. Derek Allou (February 17) described two books which have lately reappeared after being lost for a century and a half, containing drawings by Thomas Simon, the seventeenth-century medallist. The first book contains some dozen of the original vellum warrants authorizing Thomas Simon to prepare the dies and punches for seals and coins of the Commonwealth and Restoration. The designs on them are from Thomas Simon's own hand and are sometimes beauti-

fully finished in colour. The second book is perhaps the more interesting. It is a sketch-book which Thomas Simon used, at various intervals, from his student days till shortly before his death. It contains pencil sketches and portraits, mostly in profile, with various other trifles such as sketch-books contain. Unfortunately most of the portraits, which are almost entirely of men, cannot be identified. There are, however, a few portraits of celebrities, sometimes copies of paintings, such as those of Charles I, Henrietta Maria, Strafford, or Cromwell. In a few cases the coins, medals, or seals made from these preliminary sketches survive till to-day. The manuscripts are in the possession of Mr. R. R. Barker, a direct descendant of Thomas Simon.

In his paper on "Talismans" (April 21) Mr. W. Gilbert diverged somewhat from hard and fast Numismatics into the more intangible and speculative sphere of the Occult. The five specimens of talismans which he exhibited prescribed limits to the handling of a subject that otherwise might have been expanded almost indefinitely. He dealt with the significance of mystic signs, symbols, and numbers, and with the question of their potency and sphere of influence. He pointed out the important place held by talismans not only among ancient peoples but in the world to-day. The whole subject embraces astrological systems from the earliest times, the belief in magic, Christian and pagan mysticism, as well as less well defined forms of speculative philosophy of every age. Though the subject of talismans and the Occult may seem, at first sight, somewhat far removed from the more prosaic study of coins, a certain amount of common ground may be discovered in the symbols, not infrequently of a mystic character, that occur on ancient coins. Numismatists appear to have attached less importance to these adjunct symbols than they deserve, and it is very probable that, besides being signs of mints or moneyers, they may possess some occult significance. We are, therefore, grateful to Mr. Gilbert for leading us into this interesting field of speculation.

Two short papers on plated denarii were read by Dr. L. A.

Lawrence and the President (May 19). The subject of Dr. Lawrence's paper was a hoard of plated denarii found in St. Swithin's Lane, off King William Street, E.C. 4. Although discovered as far back as 1842, the hoard was preserved practically intact by Mr. Roach Smith, who handed it over to the British Museum, where it has remained without further investigation till the present year. The remarkable features are: (1) it is the only hoard, so far recorded, that consists only of plated coins, and (2) the number of specimens struck from identical pairs of dies is most unusual; for example, no less than 16 coins of Augustus and 26 of Tiberius are from the same dies. From these die-identities Dr. Lawrence concluded that the coins must have been closely connected with the person who made them, and he suggested further that this person may have been either an official, or some one connected with an official, of the mint. Assuming that plated coins were issued officially by the Roman government, this hoard may be supposed to represent a store of worthless denarii intended sooner or later to be put into circulation.

The President's paper, entitled "*Ars denarios probare*", began by considering the policy of M. Gratidianus (82 B.C.) in appointing bureaux for the scrutiny and withdrawal from circulation of "bad money" and in devising a method by which plated coins could be detected. The precise nature of the method is a matter of conjecture. But, as any test by assay is out of the question, it is probable that some mechanical test, such as weighing, or cutting the edge, was employed. Perhaps the small longitudinal cuts sometimes observed on the edge of denarii may be instances of Gratidianus's *Ars probandi*. The point is, after all, only a minor one, and the incident of Gratidianus suggests others of far more importance. For example: (1) If plated denarii, which were the cause of the financial panic of c. 82 B.C., were condemned by the Roman government as *monetæ falsæ*, can we reasonably imagine that this species of coin was issued officially?

(2) If, as Dr. Lawrence stated, plated coins begin about

the middle of the second century B.C., it is surely remarkable that we hear of no protest against them till the year 82 B.C. This seems to indicate that plated coins were not common till shortly before this date. If so, it follows that plated coins are not necessarily contemporary with the corresponding silver issues, but may be made by forgers at a later date; possibly from cast dies.

(3) While we have no direct evidence in support of the view that plated coins are contemporary with official issues, the evidence of the St. Swithin's Hoard points very plainly to the opposite conclusion. The coins show no signs of wear through circulation, and the number of die-identities indicates that they were all made at one and the same time. While expressing a friendly disagreement with the view of Dr. Lawrence, the President suggested that the hoard appears to be the product of a forger who lived about the time of Claudius or Nero. Since the reading of these papers, there has come to light a record of two bronze coins of Antonin and Nero which were found along with the plated denarii. This practically fixes the date of burial in the reign of Nero. Perhaps it was in consequence of the ferocious onslaught of Boudicca that a number of Romano-Londoners made their escape from the city. The former owner of the plated coins seems to have left them behind, evidently because they were worthless, but we may imagine that he was careful to pocket only "good money" if he had any.

Two evenings this Session were devoted to Exhibitions, and I venture to think that the plan we have adopted of having definite subjects to be illustrated has added appreciably to the interest of these exhibitions. The subject to be illustrated on November 18 was "Coins and Medals of Naval Interest", and on March 17 "Religious Types". As full notes of the coins and medals exhibited appear in Proceedings of the Society, it is unnecessary to repeat them here. Suffice it to say that on both occasions some remarkably fine and interesting pieces were produced, and the short papers helped considerably towards our appreciation of them.

The Numismatic publications of the past year, notwithstanding the absence of any works of the first magnitude, include very many useful treatises that will be welcomed by both students and collectors.

Mr. C. H. V. Sutherland is certainly to be congratulated on *Coinage and Currency in Roman Britain* (Oxford University Press, 1937). In this he gives a detailed survey of the coinage that circulated and was, to a large extent, produced in this country from the middle of the first century B.C. to the beginning of the sixth century A.D. Ackerman, with whose work most of us are familiar, contented himself with describing coin-types that had some bearing on Roman Britain. Mr. Sutherland, by a careful and critical examination of barbarous copies, "minimi", and other locally struck coins, has thrown entirely new light on the subject. The record of Finds and his deductions from them are of more than usual interest, and mark a real advance in our knowledge of the Coinage of Roman Britain.

Miss Jessie D. Newby's *Numismatic Commentary on the Res Gestae of Augustus* (Athens Press, Iowa, U.S.A.) is a monograph of importance and originality. The subject and the material with which it deals are alike singularly attractive. Not only is the *Res Gestae* unique as an historical monument, but the coinage of Augustus stands apart from that of any other reign by reason of the varied character of its coin-types and the wealth of its allusions to contemporary events. In using the coinage as a running commentary on the *Monumentum Ancyranum* Miss Newby throws light on a number of types that hitherto have been obscure, or whose historical bearing has been overlooked. Her method is necessarily selective, hence her work only covers a part of Augustus's extensive coinage. But, taken in conjunction with more comprehensive works, this *Commentary* must inevitably prove of the highest value to students of the Augustan coinage.

In "The Richborough Hoard of Radiates" (*Numismatic Notes and Monographs*, no. 80) Mr. H. Mattingly and Mr. W. P. D. Stebbing deal exhaustively with the important

hoard of 875 bronze coins unearthed in the Roman fort of Richborough, September 1, 1931. I referred to this find in my address last year, but as the monograph has only recently been published, a further reference to it is fitting. The coins are fully described and classified according to their reverse types; a considerable number being illustrated. Within the last few years a good deal of study has been devoted to barbarous and semi-barbarous imitations of later imperial coins. It is, therefore, of the utmost value to have a large hoard, such as this, set forth in detail. Equally important, too, are the notes which form the introduction to the volume. By a carefully reasoned system of deduction the authors arrive at the interesting conclusion that in this hoard "we have the coinage of Hengist and Horsa with their Jutes, when Vortigern invited them to aid him against Picts and Scots and gave them the island of Thanet for their hire". In an appended note Mr. Derek Allen deals with the relation of Anglo-Saxon sceattas to the Richborough coins. Here he points out a number of striking similarities, on the strength of which he suggests an even later date for the Richborough Radiates than that proposed by Messrs. Mattingly and Stebbing. But whether the hoard belongs to the time of Hengist and Horsa or to that of St. Augustine it forms a fascinating link with the "Dark Ages" of English history.

Two monographs of a rather specialistic nature by Mr. Mattingly give evidence of original thinking. (1) *The Mint of Milan: A Lost Chapter of its History* (reprinted from the review *Numismatika*, Zagreb, pt. ii-iv, 1934-1936). Instead of fixing the opening of the mint of Milan in the reign of Gallienus, as is maintained by Alföldi and others, Mr. Mattingly states reasons for placing it some ten years earlier, and assigns certain issues of Trajan Decius, Trebonianus Gallus, Volusian, and Valerian to this mint. Among the issues of Milan he includes the remarkable "Consecratio" series, "Divo Augusto" to "Divo Severo".

(2) *The "Romano-Campanian" Coinage: An Old Problem from a New Angle* (reprinted from the *Journal of the Warburg*

Institute, vol. i, no. 3). Mr. Mattingly approaches the didrachms, generally known as "Romano-Campanian", by way of the earlier coinages of Campania and shows points of resemblance between them and the Campanian coins, more particularly those of Neapolis issued after 326 B.C. To determine the relation of the Romano-Campanian series to the earlier coins of Magna Græcia is an important point, to which scant justice was done by the older school of numismatists. Recent research has necessitated the reconstruction of our view of Rome's early coinage, and Mr. Mattingly's article supplies a further link in the chain that is daily growing stronger.

In connexion with the point just mentioned I should like to call your attention to an article that appears in the current number of the *Numismatic Chronicle* entitled "The Earliest Coinage of Rome in Modern Studies", by Mr. H. Mattingly and Mr. E. S. G. Robinson. The conclusion that the X Denarius belongs to a much later date than Pliny suggests has for many years been forcing itself on students of the early Roman coinage. That we are now in a position to state with increasing confidence that its date is 187 B.C., or very closely thereabouts, is one of the great achievements of recent research and scholarship. Obviously this revised dating necessitates a drastic reconstruction of the Roman coinage, both before and after the introduction of the denarius. Before embarking on this work of reconstruction in detail, our authors have very wisely issued this preliminary study, in which they survey the works of leading numismatists, pointing out how, notwithstanding the bias of Pliny's dating, glimmerings of the truth have almost unconsciously filtered through their works. Old prejudices die hard; and when they happen to be enshrined in works that have acquired an almost sacrosanct character, it seems little short of sacrilege to lay them on the operating table and apply the dissecting knife. Yet this is the operation that Messrs. Mattingly and Robinson have performed with skill and fairness. They review dispassionately and critically the theories of Eckhel, Boeckh, the Fathers Marchi and Tessieri,

Lenormant, Mommsen, Hultsch, Baron d'Ailly, Samwer, Bahrfeldt, and Babelon. The views of Haeblerlin, whose monumental works have exercised the greatest influence on early Roman Numismatics, had already been challenged by Sambon, Willers, and Pick; and the review is brought up to date with the works of Grueber, Giesecke, and of the authors themselves. But time forbids me to give more than a sketchy outline of the article. It must be studied first-hand and its arguments duly digested.

Mr. Alföldi's *A Festival of Isis in Rome under the Christian Emperors of the Fourth Century* is an important study of the *Vota Publica* issues, generally assigned to the reign of Julian the Apostate. The coins are mostly of Rome and give evidence of the cult of Alexandrine deities throughout the fourth century. The anonymous coins are closely connected with a *Vota* series with portraits of emperors from Diocletian to Valentinian. The date of the imperial *vota* seems to have become identified with that of the Festival of Isis and the "Navigium Isidis".

In an article on Eugenius (*Num. Zeit.*) Mr. G. Elmer works out the view that the imperial mint for gold, and probably also for silver, travelled round with the emperor. Although the theory lacks conclusive proof, it is nevertheless interesting.

Mr. L. A. Lawrence's *Coinage of Edward III* is a work that will commend itself to all students of the English series. Although it is only during the present year that it has been published in book-form, the greater part of it had already appeared in the *Chronicle*, in lengthy instalments, from as far back as 1926. In the handling of this intricate subject Dr. Lawrence has shown himself a master of the art of observing and noting minute details and differences. In its completeness, clearness, and general "lay out", Dr. Lawrence's *Coinage of Edward III* may well be taken as a model on which to frame treatises on other reigns.

W. Giesecke's *Antikes Goldwesen* is an originally conceived study of coinage from the earliest times down to the fourth

century A.D. A feature of special interest is that it is the first attempt, since Mommsen, to treat the Carthaginian coinage as a whole. It may be considered as a courageous, if not completely successful, attempt at a synthesis of facts often scanty and recalcitrant.

An extremely useful bibliography of Greek Coin Hoards has been compiled by Mr. Sydney P. Noe (*Numismatic Notes and Monographs*, no. 78). Exhaustive works of this kind are greatly needed and we should welcome similar bibliographies in other branches of Numismatics.

In his monograph on *The Development of Roman Coinage* (B. Blackwell, Oxford, 1937) Dr. Milne tells us much that is suggestive; and although he does not avail himself of some of the more recent views regarding chronology, he gives the main lines on which the Roman coinage evolved.

An article on British Coins by Mr. Bryan Pontifex appears in the *Central Literary Magazine* for July 1937. The writer's point of view is essentially general and for this reason he is likely to stimulate general readers with an interest in Numismatics.

The Bristol Hoard is described by Mr. Mattingly and Mr. Bertram W. Pearco (*Num. Chron.*). This hoard, consisting of 1,476 denarii, 2 copper Roman coins, and 2 Greek drachms, was found in Rochester Road, Bristol, on July 28, 1937. In its composition it corresponds closely with the Muswell Hill find of 1929; both covering the period from Mark Antony to Geta. Except for a few minor variants the coins are in no way remarkable and the hoard seems typical of the coinage current in Britain in the early part of the third century.

Besides papers read at the Society's meetings, volume 68 of the *Numismatic Chronicle* (Fifth Series) includes articles by Mr. E. S. G. Robinson on "British Museum Acquisitions of Greek Coins" (p. 233), "Coins of Olbia" (p. 91), "A Hoard from Sidon" (p. 197), "Coins from the Excavations at Al Mina" (p. 182), and "A Hoard of Alexandrine Coins from Guernsey" (p. 135). Notes on the Oxford Collections are contributed by Dr. Milne (p. 153) and notes of Indian coins

acquired by the British Museum by Mr. J. Allan, Keeper of Coins and Medals.

I would also mention a monograph on "Armorican Art" by Major N. V. L. Rybot (*Bulletin of the Société Jersiaise*). The material is drawn exclusively from a large hoard of Armorican coins found in Jersey, April 22, 1935, of which Dr. H. E. Stapleton has elsewhere given a description. It is, I believe, the first time that a serious study of this curiously distinctive art has been published. A further study of its relation to kindred schools of barbaric art, as found elsewhere in Gaul and also in Britain, might yield even more interesting results.

The volume of the *Transactions of the International Numismatic Congress* held in July 1936 has just come to hand. The collating of the large mass of material contained in it has necessarily taken time, and its appearance will be welcomed by those who were fortunate enough to attend the Congress as well as by others who were debarred from doing so. It presents some of the most up-to-date results of modern numismatic research and covers the widest possible range. It is manifestly impossible to give an adequate idea of its contents, which are arranged under the main sections of Greek, Roman, Medieval, Modern, British, Colonial and Oriental, and Medals. By no means the least interesting papers are those that deal with what may be described as side-lines of Numismatics—important studies that throw light on coins from a different angle. The book is beautifully produced, as are also the plates and incidental illustrations, and forms a worthy record of an historic Congress.

To sum up our review of the year's work. It will be seen that the dominant feature is the importance of Finds as a means of acquiring a more intimate knowledge of coins (particularly ancient ones) and of readjusting or substantiating our views concerning them. I have also emphasized the "new dating" of the Roman denarius as one of the most important and far-reaching results of modern research. That some numismatists still hesitate to accept it is not altogether surprising for, as I said just now, "old prejudices die hard".

But I look confidently to a complete vindication of the now dating that will give it acceptance beyond all question.

In conclusion, it may not be out of place to say a word or two about some of the work that may be expected in the near future. We hope to have vol. iv, pt. 2, of *Roman Imperial Coinage* ready in the course of the next few months. There are also two interesting proposals in the field of Roman Numismatics. The first comes from Messrs. Pink and Elmer and may, perhaps, be described as a "condensation of Roman Numismatics". To put it briefly, they postulate a system of regular types which constitute the basis of the coinage proper. All variants and unusual types are relegated to a separate category; and in many cases the authors appear to regard these as either the result of forgery, false description, or local imitation. But whether or not the plan of reducing so complex a coinage to such simplified terms is feasible remains to be seen.

The other proposal is of a diametrically opposite character. This aims at the compilation of a complete Corpus of Roman coins, including every known variant. A work of such pretensions can only be undertaken on an international basis, necessitating the co-operation of all the great museums and private collectors in Europe and America. The cost of such an undertaking might indeed be prohibitive. But should the proposal ever materialize it would be of incalculable value. Is it too optimistic to suggest, further, that the international co-operation required for a complete Corpus might be a step towards promoting the World's Peace?

Mr. W. Gilbert proposed a vote of thanks to the President for his address.

The result of the ballot for office-bearers for 1938-9 was announced as follows:—

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The President proposed a vote of thanks to the Auditors and the Scrutineers of the Ballot and adjourned the Society until October 20.



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